APPENDIX H EMPR

Environmental Management Programme

Development of the Shell Aerodrome Service Station in Baragwanath Extension 5, Gauteng

22 February 2022

Project No.: 0562661

The business of sustainability

ERM

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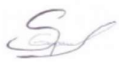
Environmental Management Programme

Development of the Shell Aerodrome Service Station in Baragwanath Extension 5, Gauteng



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Acronyms and Abbreviations

Name	Description
CA	Competent Authority
CI	Conservation Important
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
EMO	Environmental Management Officer
EMPr	Environmental Management Programme
ERM	Environmental Resources Management
GDARD	Gauteng Department of Agriculture and Rural Development
GN	Government Notice
I&AP's	Interested & Affected Parties
NEMA	National Environmental Management Act
PM	Project Manager
PPE	Personal Protective Equipment
SAPREF	Shell and BP South African Petroleum Refineries
SHE	Safety, Health and Environment
UST	Underground Storage Tank

1. INTRODUCTION

The following Environmental Management Programme (EMPr) has been prepared by Environmental Resources Management Southern Africa (Pty) Ltd (hereafter referred to as 'ERM'), for Shell Downstream South Africa (Pty) Ltd (hereafter referred to as 'Shell'), a division of the global Royal Dutch Shell group, is one of the world's largest petrochemical and energy companies with an average of 9 3000 employees in more than 70 countries. Shell are currently involved in the Retail and Commercial Fuels, Lubricants and Oils, Chemicals, Manufacturing and Upstream Exploration in South Africa. The service station will include the following infrastructure:

- 4 x 46m^3 petroleum underground storage tanks and associated infrastructure
- Service station
- A convenience store
- 4 x drop down ATM's

The installation of Underground Storage Tanks (USTs) for fuel storage triggers the following listed activities in the Environmental Impact Assessment (EIA) Regulations Listing Notice 1 of 2014, as amended (GN R 327 of April 2017):

- **Activity 14:** "The development of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres".

This EMPr is presented in draft format and is currently undergoing public participation. The EMPr is therefore submitted to the Gauteng Department of Agriculture and Rural Development (GDARD) with the Draft Basic Assessment Report (BAR). Shell remains responsible for the accuracy and relevance of the information contained in this EMPr while the EMPr remains a 'live' document and makes provision for updating during the detailed design and planning phase, and incorporation of any relevant conditions in the EA.

This EMPr covers the installation of the USTs as well as the construction and operation of the service station. A description of the roles and responsibilities of the various parties involved with these activities has been provided. In addition, the potential environmental impacts and associated mitigation measures have been identified for excavation, UST installation activities as well as the general construction of the service station.

The specified assets will be installed by Shell's appointed Contractor, in accordance with Shell's UST System Installation Scope of Work, as well as Shell's HSSE&SP Control Framework.

1.1 EMPr Scope and Objectives

The primary objective of this EMPr is to facilitate appropriate environmental management and mitigation measures during all phases of the Project to minimise potential environmental impacts that may arise. The EMPr for the Project is therefore required in order to:

- Assist in ensuring continuing compliance with South African environmental legislation and Shell's corporate responsibility;
- Provide a mechanism for ensuring that measures identified in the BA are implemented to mitigate potentially adverse environmental impacts;
- Provide assurance to regulators and stakeholders that their requirements with respect to environmental and socio-economic performance will be met; and
- Provide a framework for compliance auditing and inspection programs.

1.1.1 Regulatory Requirements

An EMPr for the Project is required as part of the BA process in terms of the EIA Regulations of 2014, as amended (GN R 326 of April 2017) promulgated in terms of Chapter 5 of NEMA. The EMPr is a legally binding document on the applicant as a condition of approval of the Project by the GDARD, in addition to other conditions that may be stipulated in the EA, if granted.

This EMPr has therefore been developed in accordance with Section 24N of the NEMA and Appendix 4 of EIA Regulations Listing Notice 1 of 2014, as amended (GN R 327 of April 2017). The EMPr is presented in draft format and is submitted to the public, registered Interested and Affected Parties (I&APs) and commenting authorities for their review and comment.

1.1.2 Shell's Safety, Health and Environmental Policy

The Shell Safety, Health and Environmental Policy ensures that Shell is committed to living and acting in accordance with the values to adhere to sound economic, environmental and social responsibilities of society and business at large.

It is the responsibility of the relevant Environmental Manager (or similar), assisted by the appointed Safety, Health and Environmental (SHE) Coordinator to implement the Policy. The duties of the SHE Coordinator include:

- The investigation and prevention of incidents;
- The provision of environmental and safety training;
- The monitoring of environmental performance;
- The collection of relevant statistics; and
- Liaison with the relevant regulating authorities.

This EMPr is therefore compliant with the Shell Safety, Health and Environmental Policy.

1.2 Project Applicant

The proponent for the application is Shell Downstream SA, a division of the global Royal Dutch Shell group. Shell was formed in 1907 through the amalgamation of the Royal Dutch Petroleum Company in Netherlands and the "Shell" Transport and Trading Company in United Kingdom. Shell are currently one of the world's largest petroleum manufacturers operating in excess of 70 countries. Shell are currently involved in the Retail and Commercial Fuels, Lubricants and Oils, Chemicals, Manufacturing and Upstream Exploration in South Africa.

The focus of the Shell Downstream operations involve turning crude oil into a range of refined products, which are moved and marketed around the world for domestic, industrial and transport use. In addition, Shell produce and sell petrochemicals for industrial use worldwide. Shell and BP South African Petroleum Refineries (SAPREF), is the largest petroleum refinery in Southern Africa and is jointly owned by Shell and BP. With an operational record of approximately 100 years, Shell focus on meeting the world's growing demand for energy in economically, environmentally and socially responsible ways.

Shell Downstream SA (Pty) Ltd

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1.3 Environmental Impact Practitioner

Environmental Resources Management Southern Africa (Pty) Ltd (ERM) has been appointed by Shell as the independent Environmental Assessment Practitioner (EAP) to undertake the Basic Assessment (BA) process for the proposed project.

ERM is a privately-owned company registered to conduct business in South Africa. ERM has no financial ties to, nor is ERM a subsidiary, legally or financially, of Shell, Remuneration for the services to ERM is not linked to an approval by the decision-making authority. Furthermore, ERM has no secondary interest in the project.

The ERM team selected for this project possess the relevant expertise and experience to undertake the BAR and EMPr. As such, ERM has signed the legally required declaration of independence to function as an objective Environmental Assessment Practitioner (EAP).

The EAP for the applicant is:

EAP and Contact Person:	Mrs. Stephanie Gopaul (Project Manager)
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Please find detailed Curriculum Vitae of the ERM team attached as *Annex A*.

1.4 Competent Authority

The Competent Authority (CA) in terms of the EIA Regulations Listing Notice 1 of 2014, (GN R 327 of April 2017) as amended, is the Gauteng Department of Agriculture and Rural Development (GDARD). The contact details for the assigned case officer for the GDARD are as follows:

GAUTENG PROVINCE
AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Gauteng Department of Agriculture and Rural Development

Contact Person:	Phuti Matlamela
Physical Address:	56 Eloff Street, Johannesburg, Gauteng, 2000
Tel:	011 240 3420
Fax:	
Email:	Phuti.Matlamela@gauteng.gov.za

2. BACKGROUND INFORMATION

2.1 Project Locality

The fuel service station under review is located on Portion Farm 751-IQ, Baragwanath, City of Johannesburg Metropolitan Municipality, see *Figure 2.1*. The proposed site is vacant land and is a green field site. It is located adjacent to the SAB Baragwanath Depot. The immediate surrounding areas to the south and west are vacant land and immediate surroundings to the north and east of the study area comprise industrial development. Bordering the study area is the N12 national road to the North, Aerodrome Road is to the West and Chris Hani Road is to the South-West. The study area is situated approximately 3km east of the Chris Hani Baragwanath Hospital and approximately 1km west of Southgate Mall. Due to these factors, the area is noted to have high vehicle frequency and as such requires for fuel filling stations.

Figure 2.1 Locality Map

3. PROJECT DESCRIPTION

Shell Downstream South Africa (Pty) Ltd (hereafter referred to as Shell), intend on developing a filling station and convenience store on the corner of Aerodrome and Chris Hani Roads, Baragwanath Extension 5, Gauteng. The proposed filling station will be constructed on Farm 751-IQ, Baragwanath, City of Johannesburg Metropolitan Municipality. The site is bordered by the N12 national roadway to the north, Aerodrome Road to the west and Chris Hani Road to the southwest. Furthermore, Southgate Road traverses the northern portion of the study area and is situated directly adjacent to Baragwanath South Africa Brewery Depot. The site is situated approximately 3km east of the Chris Hani Baragwanath Hospital and approximately 1km west of Southgate Mall and as such requires fuel filling stations.

The Proposed service station triggers the following listed activities in EIA Regulations Listing Notice 1 of 2014, as amended (GN R 327 of April 2017):

- **Activity 14:** "The development of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres".

."

The proposed filling station will consist of:

- 4 x 46m^3 petroleum underground storage tanks and associated infrastructure
- Service station
- A convenience store
- 4 x drop down ATM's

4. IMPLEMENTATION OF THE EMPR

Shell is committed to providing resources and establishing the systems and components essential to the implementation and control of the EMPr. These include appropriate human resources and specialized skills, training programs, communication procedures, documentation control and a procedure for the management of change.

4.1 Project EMPr Staff Organization

The Project will have dedicated personnel competent on the basis of appropriate education, training, and experience that will manage and oversee the Environmental, Health and Safety (EHS) aspects over the Project lifecycle. Shell will however retain the primary responsibility for meeting environmental commitments throughout the Project life span.

The key environmental management roles during the construction and operation phases of the Project include, but are not limited to: the Project Developer (Shell), the Project Manager (PM), Contractors, the Environmental Management Officer (EMO), the Environmental Control Officer (ECO), the Safety Manger and representatives of the Project authorities (GDARD).

During construction, Shell will delegate responsibility of the EMPr implementation to contractors. Shell will manage and monitor the Contractor's implementation of the EMPr through contractual mechanisms and regular direct oversight. Shell will have a supervisory PM on the site and an EMO will also be appointed to monitor compliance with the EMPr and other conditions of approval (i.e. Environmental Authorisation (EA)). Furthermore, the Project authorities including GDARD and the Johannesburg Metropolitan Municipality will also be involved in the oversight of the Project and EMPr implementation, primarily through the compliance monitoring activities.

4.1.1 Key Staff Obligations and Responsibilities

4.1.1.1 Project Developer

For the purpose of this EMPr, the Project Developer refers to Shell, who is thus ultimately responsible for compliance with all conditions of approval of Project development or any aspect thereof by any Project authority.

Shell undertakes to manage all activities associated with the Shell Aerodrome Fuel Station Development Project in a manner that minimises adverse effects on the environment and the public, maximises socio-economic benefits for the area and protects the health and safety of employees, contractors, visitors and the general public. To this end, Shell will:

- Ensure that all relevant approvals and permits have been obtained prior to the start of the construction;
- Ensure that the EMPr forms an integral part of the contract documents entered into with all contractors;
- Educate personnel, contractors and visitors with regard to the environmental health and safety (EHS) requirements applicable in general to the project site, prior to accessing the site;
- Appoint a suitably qualified or experienced environmental management officer (EMO) prior to the start of construction activities on the site for:
  - Undertaking monthly internal EMPr compliance audits to ensure that all conditions of the approval are being complied with.
- Appoint a competent project manager to oversee all aspects of the construction activities of the project; and

- Monitor, evaluate and report performance in safety, health and environmental protection to the relevant management level within Shell.

4.1.1.2 Project Manager

The Project Manager (PM) refers to the person who is responsible for overseeing all aspects of the construction phase activities. Key obligations and responsibilities of the PM include, but are not limited to:

- Ensure that the planning / design requirements as set out in this EMPr and any other conditions stipulated by relevant Project authorities are implemented prior to expansion activities;
- Assist the EMO in ensuring that the conditions of the EMPr are adhered to and promptly issue instructions requested by the EMO to the Contractors(s);
- Assist the EMO in making decisions and finding solutions to environmental problems that may arise during the Project lifecycle;
- Review and approve construction method statements with input from the EMO;
- Order the removal of person(s) and/or equipment not complying with the specifications (as required by the EMO or otherwise); and
- Provide input into the EMO's on-going internal review of the EMPr.

4.1.1.3 Contractor(s)

Contractor(s) will be appointed by Shell for the construction and decommissioning activities of the Project. This entity refers to any company or individual appointed by Shell to undertake any aspects of the Project. The Contractor(s) will:

- Enter into a contractual commitment with Shell to adhere to the requirements of this EMPr;
- Familiarise themselves with the requirements of this EMPr and educate all sub-contractors', employees, suppliers, agents etc. accordingly;
- Prepare method statements describing how techniques, practices and methods will be employed that ensure the fulfilment of these requirements;
- Undertake additional mitigation, management and / or remedial measures following the receipt of a written instruction from Shell to do so;
- Take all reasonable and practical measures to prevent the occurrence of accidents that may compromise the integrity of the environment and/or the health and safety of all persons on site, of all persons on neighbouring land and of the general public;
- Cooperate in EMPr compliance audits by the EMO, external auditors and/or relevant government bodies and provide the necessary information to this effect;
- Report to Shell or its representative all incidents including but not limited to environmental damage, injuries and/or loss of or damage to Shell's physical assets or corporate image; and
- In the event of an incident as described above occurring, present a detailed plan to:
    - Restore the environmental conditions, in so far as it is possible to do so, to a state similar to that existing before the incident;
    - Address any injuries caused in a manner satisfactory to the injured party or parties and Shell; and
    - Prevent the future occurrence of similar incidents.

4.1.1.4 Environmental Management Officer (EMO)

The EMO will:

- Undertake at least weekly inspections (with frequency determined by the nature of the on-site activities as may be appropriate) to monitor compliance of all parties with the requirements of the EMPr;
- Provide the appropriate level of management within Shell with monthly reports on environmental compliance and performance;
- Advise/recommend on actions or issues impacting on the environment to the PM, who shall issue any required site instructions to the Contractor(s);
- Develop an environmental awareness and training programme describing the manner in which:
  - The applicant intends to inform its employees and contractors of any foreseeable environmental risks which may result from their work; and
  - Risks must be dealt with upon identification in order to avoid pollution or degradation of the environment identified during the BA process and which emerge during the project.
- Review and approve construction method statements together with the PM for those activities that are identified as having a significant environmental risk;
- Assist the Contractor(s) in finding environmentally responsible solutions to problems that may arise;
- Recommend to the PM the removal of person(s) and/or equipment not complying with the EMPr;
- Undertake photographic monitoring during the construction activities ;
- Keep records of all activities/ incidents concerning the environment;
- Take immediate action on the site to stop works where significant and irreparable damage is being inflicted on the environment, and inform the PM immediately of the occurrence and action taken; and
- Undertake regular internal review of the EMPr and make recommendations regarding its updating to the PM and Shell.

In addition to the obligations and/or responsibilities described above, the EMO has the authority to recommend to GDARD that works be stopped if in his/her opinion serious harm to or impact on the environment is likely to occur or has occurred and such actual or potential harm or impact is in contravention of the EMPr, and which is or may be caused by expansion activities.

The EMO will be responsible for the compilation of a final compliance audit report for the Project, completed when all expansion activities related to the Project have terminated and the site has been cleared of all construction related debris, materials or equipment not forming part of the permanent works. The final compliance audit report will be submitted to the GDARD in order to achieve “environmental closure” for the decommissioning and construction phase of the Project.

4.1.1.5 Environmental Control Officer (ECO)

An ECO will be appointed by Shell to undertake periodic audits as required, for the construction activities of the Project.

The ECO(s) will:

- Provide support and advice to contractors in the implementation of environmental management procedures.

- Undertake EMP compliance audits and compile reports. Provision of reports to Shell for authorisation and submission to GDARD.
- Attend project meetings (if required) to discuss and resolve environmental concerns and non-compliances
- Undertake inspections (with frequency determined by the nature of the on-site activities as may be appropriate) to monitor compliance of all parties with the requirements of the EMPr;
- Provide the appropriate level of management within Shell with monthly reports on environmental compliance and performance and
- Advise/recommend on actions or issues impacting on the environment to the PM, who shall issue any required site instructions to the Contractor(s)

4.2 Contractor Method Statements

Method statements will be required for specific activities that are identified to pose a significant risk to the environment and/or which require site specific detail beyond that contained in the EMPr or when requested by the PM.

A Method Statement is a “live document” in that changes can be implemented by the Contractor(s) and the EMO, as circumstances unfold. A Method Statement describes the scope of the intended work in a step-by-step description, in order for the EMO and the PM to understand the Contractor’s intentions.

This will enable them to assist in devising any mitigation measures, which would minimize environmental impact during these tasks. Method Statements must be developed based on the risk assessments of the contractors’ activities.

4.3 Training and Environmental Awareness

Shell will develop an environmental awareness and training programme describing the manner in which:

- The applicant intends to inform its employees and contractors of any foreseeable environmental risks which may result from their work; and
- Risks must be dealt with in order to avoid pollution or degradation of the environment identified during the BA process and which emerge during the project.

4.4 Communication

Channels of communication must be established between Shell, the Contractor(s) and external stakeholders. Shell (EMO) shall establish and maintain procedures for:

- Internal communication between the various levels and functions of the Project staff organisation; and
- Receiving, documenting and responding to relevant communication from external interested parties.

A complaints procedure must be established and maintained to record any complaints or comments received from the public during the construction. The complaints procedure must be underpinned by the following principles and commitments:

- Disseminate key information to directly impacted stakeholders;
- Seek to resolve all grievances timeously; and
- Maintain full written records of each grievance case and the associated process of resolution and outcome.

The responsibility for resolution of grievances will lie with Shell and its Contractor(s) where applicable.

4.5 Record Keeping

Shell will control HSE documentation, including Project licenses, approvals, this EMPr; associated procedures; checklists, forms and reports, through a formal procedure. The document control procedure will describe the processes that the Project will employ for official communication of both hardcopy and electronic documents and the requirement for electronic filing, document tracking and version control numbers.

Shell (the EMO) is responsible for maintaining a master list of applicable Project HSE documents and for communicating this list to the appropriate parties.

The Contractor(s) will be required to develop a system for maintaining and controlling its own E documentation. All Project records and documentation will be kept on site for those site activities which require such documentation to be kept on site. Relevant documentation will be backed up on Project Place (Shell's project management database). A records register will be maintained indicating document formats (hard or soft copy) and will be archived for the life of the Project.

4.6 Checking and Corrective Action

Checking includes inspections and monitoring as well as audit activities to confirm proper implementation of the EMPr as well as effectiveness of its mitigations. Corrective actions include response to incidents, non-compliances, and non-conformances. Actions also include those intended to improve performance and prevent future non-conformances.

4.6.1 Inspection

Site inspections will be conducted weekly on an ad hoc basis (internally) and formally once every month in an effort to monitor compliance and implement conditions stipulated in this EMPr.

4.6.2 Monitoring

Monitoring activities shall include the recording of information to track compliance with the EMPr. The main objectives of the monitoring program will be to:

- Comply with regulatory requirements (i.e. emissions as stipulated);
- Monitor changes in existing physical, biological and social characteristics of the environment, compared to the baseline;
- Determine the effectiveness of the control and mitigation / enhancement measures and provide a basis for recommending additional or alternative measures;
- Verify that all project management plans are appropriate and relevant to their respective project activities and phases; and
- Provide accountability and a sense of ownership through the project lifecycle.

4.6.3 Auditing

Shell will conduct regular audits to monitor compliance with the Project EMPr. The Contractors' performances towards meeting these requirements will also be assessed. Audits will be undertaken as follows during the Project:

- **Internal audit:** The Shell EMO will audit activities of the Contractors and Shell's performance on a monthly basis and undertake weekly inspections. A formal monthly report will be submitted to the ECO. The EMO shall use this EMPr as a basis to develop a checklist for monthly auditing.
- **External audit:** a suitably qualified independent third party (ECO) will audit the Contractors and Shell on a three monthly basis against the requirements of the EA and EMPr during the expansion activities .

Both the internal and external audits will include, at a minimum, the following:

- Completeness of applicable HSE documentation, including planning documents and inspection records;
- Conformance with monitoring requirements;
- Efficacy of activities to address any non-conformance with monitoring requirements; and
- Training activities and record keeping.

4.6.4 Corrective Action

Shell shall establish and maintain procedures for defining responsibility and authority for handling and investigating non-conformances, taking action to mitigate any impacts caused and for initiating and completing corrective and preventive action.

Any corrective or preventive action taken shall be appropriate to the magnitude of problems and correspond with the environmental impact encountered.

5. ENVIRONMENTAL MANAGEMENT PROGRAMME

The section below identifies the potential significant environmental and socio-economic impacts associated with the construction and operation of the proposed Aerodrome Service Station, as well as the proposed mitigation measures and responsible parties.

This EMPr is presented in a tabular format section under the following headings:

- Planning Phase;
- Installation/ Construction Phase;
- Operation Phase; and
- Decommissioning Phase.

5.1 Planning Phase

In order to ensure compliance with Shell's environmental policy as well as environmental legislation requirements, the following actions are applicable to the planning phase for installation activities.

Design and Planning Phase						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
1.	Design and Planning	Design	The proposed filling station will be founded on the weathered granodiorite; at depths of at least 2m Shell to comply with the Global design standard for installation of tanks	Site Layout and Design	Shell	Prior to the start of the works, during the planning
		Notify all registered Interested and Affected Parties of Environmental Authorisation (EA)	Notify all registered I&APs and key stakeholders of the Environmental Authorisation and the appeal process.	Copy of signed EMP is available on site	ERM	In accordance with the EIA Regulations, 2017
		Ensure compliance with legal and other permitting requirements	All relevant legal requirements must be met e.g. permits to move/relocate orchid specimens from the GDARD, land use zoning, wayleave applications etc.	Relevant documentation on record	Shell and EMO	Prior to the start of the works
		Schedule site preparations	A project schedule to coordinate vehicle movements, deliveries and construction activities to minimise noise emissions and minimise traffic congestion must be prepared in advance of construction.	Project schedule sign-off	Shell and EMO	Prior to construction/ installation
2.	Notification of commencement of construction	Notify GDARD of the commencement date of construction activities	Notify GDARD in writing, prior to commencement of site preparation.	Proof of communication	Shell and EMO	Notification prior to commencement of construction
3.	Method Statements	Draft and approve method statements	The following method statements must be compiled: • site layout and establishment; • waste management plan; and • fire control and emergency procedures.	Method statement sign-off	Shell / PM	Prior to commencement of construction/ installation

Design and Planning Phase						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
4.	Identification of Conservation Important (CI) Species	Identify CI species on site to determine if a permit is required for removal.	A floral scan must be undertaken in the summer months to determine if the species on site is a Protected species.	Appointment of Specialist Floral Scan Permit (if required)	Shell	Prior to the start of the works

5.2 Construction / Installation Phase

In order to ensure compliance with Shell's environmental policy as well as environmental legislation requirements, the following actions are applicable to the installation phase of the USTs as well as the general construction of the service station.

UST INSTALLATION AND SERVICE STATION CONSTRUCTION						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
1.	Compliance with EMP	Confirm Shell's and contractors' commitment to adherence of EMPr.	• The approved EMPr must be available on site. The approved EMPr must be signed by all relevant parties.	Copy of signed EMPr and EA is available on site.	Shell, PM and EMO	Prior to the start of construction
2.	Impacts on existing infrastructure, services and servitudes	Avoid damage or destruction of existing infrastructure on or in the vicinity of the site.	• Site personnel must be familiar with the location of buried utilities that may be present around the site, (including water, electricity, sewage, gas, compressed air, communication) prior to commencement of any construction. • The construction footprint must be clearly demarcated, and all activities must be limited to the footprint area.	Visual Inspection	PM, EMO and Contractor	Prior to the start of construction
3.	Training / Toolbox Talks	Training regarding the Shell HSSE&SP and the conditions of the EA and EMPr to be given to site personnel prior to and during construction	• Site personnel must be trained on the following: ○ Environmental risks associated with the construction process; ○ The means by which observed environmental risks can be reported during construction; ○ Conditions/management measures of the EMPr; and ○ Conditions/management measures of the EA. • Further training needs will be identified through regular toolbox talks. • Records of training, including a register, must also be kept on site.	Training Records Attendance Registers Photographs	PM, EMO and ECO	Prior to and during construction phase
4.	Waste generation	Minimize the generation of solid and liquid waste, incl. hazardous waste, which may contaminate the receiving	• All hazardous material must be transported to a hazardous waste site for disposal by a licensed removal contractor.	Waste disposal manifest Visual inspection	PM, EMO, Contractor and Hazardous Waste Disposal Contractor (if appointed)	Throughout construction phase

UST INSTALLATION AND SERVICE STATION CONSTRUCTION						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
		environment (soil, groundwater, sensitive habitats) and adjacent properties.	• The rubble must be disposed of at a licensed municipal landfill. • Bins/skips must not be used for any purpose other than waste collection and must be emptied on a regular basis. • All off-cuts must be reused where possible or recycled. • Soil from excavation activities must be reused as fill elsewhere on the site			
5.	Air Quality	Limit fugitive dust and exhaust emissions	• Dust suppression methods, such as wetting with water, must be applied where there are large tracts of exposed surfaces and in high wind conditions. • Dust generating activities (i.e. excavation, stockpiling) must be avoided in high wind conditions. • The use of delivery trucks during construction must be limited to the designated areas and only trucks that comply with the relevant legislation must be used. • Building material and sand must be covered during transport to and from the site. • Soil and sand stockpiles must be covered with a tarpaulin. • All construction vehicles must be appropriately maintained to minimise exhaust emissions • A grievance procedure must be established whereby complaints of dust can be received, recorded and responded to appropriately.	Visual Inspection Grievance Procedure Documentation	PM, EMO and Contractor	During construction

UST INSTALLATION AND SERVICE STATION CONSTRUCTION						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
			• Construction workers and personnel will wear dust protection masks when required.			
6.	Groundwater Contamination	Avoid impact to groundwater as a result of machinery leaking fuel and oil.	• Any significant spills or leak incidents must be reported in terms of the NEMA and NEMWA. • An Emergency Response Plan must be in place for the site; this must clearly describe emergency procedures and include emergency contact numbers. • Accidental spills that may occur must be cleaned up immediately using a spill absorbent, which must then be removed by a licenced contractor to a licenced disposal facility.	Emergency Response Plan Spill Report Documentation	Contractor and EMO	Throughout construction
7.	Loss of Critically Endangered Kliprivier Highveld Grassland	Manage loss of grassland due to land clearing activities and traffic associated with construction activities	• The construction footprint must be clearly demarcated, and all activities must be limited to the footprint area. • Indigenous, low maintenance plants and water-wise landscape design must be included in the final design, including species of the Endangered Kliprivier Highveld Grassland.	Visual Inspection	PM, EMO and Contractor	During Construction
8.	Loss of Conservation Important (CI) plant species	Manage disturbance to CI specimens on Site	• Conservation Important (CI) Specimens must be located prior to construction. • Permits to move/relocate these specimens need to be obtained from the Gauteng Department of Agriculture and Rural Development (GDARD). • The construction footprint must be clearly demarcated, and all activities must be limited to the footprint area.	Permits Floral Scan Report Eco Scan Report	PM, EMO and Contractor	Prior to and during Construction

UST INSTALLATION AND SERVICE STATION CONSTRUCTION						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
9.	Habitat loss and loss of fauna including observed and potentially occurring CI species	Identification and relocation of possible CI species found of site	• Prior to construction the entire site must be searched for hedgehogs and bullfrogs. Additionally all termataria within the project footprint area must be searched for Striped Harlequin Snakes. • All CI species encountered must be relocated to a safer area in the vicinity under the supervision of an appropriately qualified specialist. • Construction must preferentially occur during winter when migratory animals have left, and many non-migratory animals are less active and not breeding. • Open trenches must be checked daily for trapped animals, which must be carefully caught and relocated according to the specifications of relevant specialists.	Visual Inspection Photographic records of species identified/relocation	PM, EMO and Contractor	Prior to and during Construction
10.	Sensory Disturbance of Fauna	Manage the impact of loud noise, vibrations and bright lights from construction activities to fauna	• Construction activities must be limited to day-light hours, especially if construction is not confined to winter, to reduce disturbance of nocturnal fauna including hedgehogs, grass-owls and bullfrogs.	Record of working hours	PM, EMO and Contractor	During Construction
11.	Proliferation of alien and invasive plant species	Minimize the proliferation of alien plant species	• Alien species such as *Melia azedarach, Eucalyptus grandis* and *Acacia mearnsii* must be removed from the Site prior to construction and disposed of correctly (i.e. to a dump site that accepts garden refuse).	Photographic records of removal of alien species	PM, EMO and Contractor	Prior to construction
12.	Noise impacts associated with construction activities	Manage any potential noise impacts.	• The contractor will adhere to local authority by-laws relating to noise control (Gauteng Noise Control Regulations, 1999).	Incident Report Grievance Procedure	PM, EMO and Contractor	Throughout construction phase

UST INSTALLATION AND SERVICE STATION CONSTRUCTION						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
			• Construction activities will be restricted to regular working hours, i.e.: Monday to Friday (8am- 5pm). • Mechanical equipment with lower sound power levels will be selected to ensure that the permissible occupational noise level is not exceeded. • Equipment will be fitted with silencers as far as possible to reduce noise. • All equipment will be adequately maintained and kept in good working order to reduce noise. • Neighbouring landowners must be informed prior to any very noisy activities being undertaken, e.g.: high intensity drilling. • A grievance procedure must be established whereby noise complaints can be received, recorded and responded to appropriately. • Construction workers and personnel will wear hearing protection when required.			
13.	Traffic impacts associated with the delivery of materials and construction equipment/machinery	Manage any potential traffic congestion.	• Heavy vehicles must have mobility on Chris Hani, Aerodrome and Southgate Roads at designated times, thus not adversely affecting rush hour traffic. • Co-ordination of movement of vehicles on and off site to reduce risks and prevent congestion on roads in the vicinity of the site. • Appoint a signalman during large vehicle movement to and from site. • Erect signage so that road users are aware of site works.	Incident Report	PM, EMO and Contractor	Throughout construction phase

UST INSTALLATION AND SERVICE STATION CONSTRUCTION						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
			• Heavy construction vehicles travelling to the site must be limited to outside of peak traffic times.			
14.	Health and Safety	To ensure safe handling and installation of the UST and construction of the service station.	• The construction site must be fenced off to prohibit unauthorised access and site access must be strictly controlled. • All employees, contractors and sub-contractors to wear appropriate Personal Protective Equipment (PPE). • Open excavations must be clearly marked and barricaded. • All employees, contractors and sub-contractors must comply with Shell's Health and Safety Policy. • Appropriate health and safety signage must be displayed on site. • The development area must be guarded day and night, 7 days a week.	Visual inspection	PM, EMO and Contractor	Throughout construction phase
15.	Employment Opportunities	Enhancement of employment benefits	• Appointed contractors must comply with Shell's employment equity policy. • As far as possible, local employment must be used to fill any vacant construction jobs. • No employment applications may take place at the entrance to the site; formal employment channels must be used. • Procurement of goods and services must be in accordance with Shell's employment equity policy.	Shell's Equity Policy	Shell, EMO and PM	Throughout construction phase
16.	Loss of Cultural or Heritage Resources	Legal Compliance and Heritage Conservation	• If any evidence of archaeological sites or remains (e.g. remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments	Visual Inspection	Shell, EMO and PM	Throughout construction phase

UST INSTALLATION AND SERVICE STATION CONSTRUCTION						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
			and charcoal/ash concentrations), unmarked human burials, fossils or other categories of heritage resources are found during the proposed activities, SAHRA APM Unit (Tel: 021 462 4502) must be alerted immediately, and a professional archaeologist or palaeontologist, depending on the nature of the finds, must be contacted as soon as possible to inspect the findings. • If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation might be necessary.			

5.3 Operational Phase

In order to ensure compliance with Shell's environmental policy as well as environmental legislation requirements, the following generic and specific requirements are applicable during the operational phase of the USTs and the service station.

OPERATION PHASE					
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**
#	**Description**		**Commitment / Actions Required / Key Controls**		
1.	Air Quality	Minimize impact on Air Quality	• USTs to be fitted with vent pipes. • Vent pipes to be fitted such that they face away from the neighbouring residential areas.	Visual inspection	Shell, PM and Contractor
2.	Groundwater Contamination	Minimise impact to soil and/ or groundwater that may occur as a result of leaks	• Monitoring wells will be installed within the UST containment area, at all four corners of the containment area. These wells must be inspected on a monthly basis so that leaks can be detected early. • The USTs, pipelines and other associated infrastructure must be inspected regularly for leaks and to ensure structural integrity. • The oil/water separator must be inspected regularly to ensure that it is functioning at all times. • Water discharged from the oil/water separator must be monitored to ensure it meets the required standard. • Tanker delivery drivers must be present during delivery of fuel with the emergency cut off switch. • All forecourt staff must undergo appropriate training, which must include training to prevent spillages during fuel dispensing. • Fuel stock must be monitored on a daily basis and these records must be kept on site. • In the event of the pump dispenser or the hoses being knocked over or ripped off, the fuel supply must be cut off by shear-off valves. • Any significant spills or leak incidents must be reported in terms of the NEMA and NEMWA. • The accumulated contents of the oil/water separator must be removed by an accredited company. • An Emergency Response Plan must be in place for the site; this must clearly describe emergency procedures and include emergency contact numbers. • Accidental spills that may occur on the forecourt must be cleaned up immediately using a spill	Incident reporting Waste Documentation Fuel Reconciliation Records	Shell

OPERATION PHASE					
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**
#	**Description**		**Commitment / Actions Required / Key Controls**		
			absorbent, which must then be removed by a licenced contractor. • All forecourt staff must undergo appropriate training, which must include training to prevent spillages during fuel dispensing.		
3.	Surface Water Contamination	Minimise impacts of potential contamination of surface water resources	• Fuel dispenser pumps must be located on a hardened surface (containment slab) to contain spillages. • In the event of the pump dispenser or the hoses being knocked over or ripped off, the fuel supply must be cut off by shear-off valves. • A closed coupling must be used when fuel is being transferred from the bulk delivery vehicle to the USTs. • The design of the stormwater management system must be based on sustainable urban drainage systems (SUDS) and water sensitive Urban Design approaches (WSUDS) which enhance natural drainage through permeable surfacing and which integrate landscaping with stormwater in line with best practice stormwater management. • No “dirty” water i.e. from the containments slabs must be allowed to enter the downstream watercourses. • The oil/water separator must be inspected regularly to ensure that it is functioning at all times. • Water discharged from the oil/water separator must be monitored to ensure that it meets the required standard. • Tanker delivery drivers must be present during delivery of fuel with the emergency cut off switch. • All forecourt staff must undergo appropriate training, which must include training to prevent spillages during fuel dispensing. • Any significant spills or leak incidents must be reported in terms of the NEMA and NEMWA.	Stormwater Management Plan Visual Inspection Waste Documentation	Shell

OPERATION PHASE					
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**
#	**Description**		**Commitment / Actions Required / Key Controls**		
			• The accumulated contents of the oil/water separator must be removed by an accredited company. • An Emergency Response Plan must be in place for the site; this must clearly describe emergency procedures and include emergency contact numbers. • Accidental spills that may occur on the forecourt must be cleaned up immediately using a spill absorbent, which must then be removed by a licenced contractor.		
4.	Increased Stormwater Runoff	Appropriate design and operation of the stormwater management system	• The stormwater management plan must be implemented that drains all runoff from the site to the attenuation pond and then to the municipal stormwater channel. • The design of the stormwater management system must be based on sustainable urban drainage systems (SUDS) and water sensitive Urban Design approaches (WSUDS) which enhance natural drainage through permeable surfacing and which integrate landscaping with stormwater in line with best practice stormwater management. • The stormwater management system must be regularly monitored to ensure effectiveness.		Shell
5.	Proliferation of alien and invasive plant species	Minimize the proliferation of alien plant species	• The removal of alien and invasive flora from the landscaped areas of the service station must form part of the operations and maintenance of the site. • Landscaping at the site must include indigenous, low maintenance plants, in particular, species of the Critical Endangered Kliprivier Highveld Grassland.		Shell
6.	Loss of fauna including observed and potentially	Prevent the collision of fauna with vehicles accessing the site.	• To reduce faunal roadkill and sensory disturbance, measures (e.g. speed bumps) must be implemented on the access roads to control the speed of vehicles accessing the site.		Shell

OPERATION PHASE					
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**
#	**Description**		**Commitment / Actions Required / Key Controls**		
	occurring CI species		• Bright lights must be minimized, hooded and orientated downwards to reduce the disturbance or attraction of fauna to lighting at the station.		
7.	Noise Disturbance	Minimize noise pollution during operation of the service station	• A grievance procedure must be established by the site manager whereby noise complaints can be received, recorded and responded to appropriately. • Equipment such as mechanical equipment, extraction fans, refrigerators that are fitted with noise reduction facilities (e.g. side flaps, silencers etc) must be used as per operating instructions and maintained properly. • Noise levels must comply with the SANS Code of Practice 100103 – 0994 (recommended noise levels). • Local by-laws for noise must be adhered to.	Grievance Procedure	Shell
8.	Health and Safety	Minimize occupational risk to employees as well as surrounding land users and occupiers.	• The UST's, underground pipes and dispensing pumps must be monitored regularly for leaks. • Staff must be trained adequately to identify and minimise the impacts of leaks, how to deal with fire, identify potential high risk situations and implement the Emergency Response Plan. • Fire-fighting facilities must conform to the oil industry standard and be regularly inspected. • Firefighting equipment must comply with SANS 1151 (Portable rechargeable fire extinguishers - Halogenated hydrocarbon type extinguishers), and be inspected regularly. • Fire extinguishers must be easily accessible. • Appropriate health and safety signage must be displayed on site. • An Emergency Response Plan must be in place for the site; this must clearly describe emergency	Training Records and Certificates. Emergency Response Plan. Visual Inspection.	Shell

OPERATION PHASE					
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**
#	**Description**		**Commitment / Actions Required / Key Controls**		
			procedures and include emergency contact numbers.		
7.	Traffic associated with the delivery of fuel by tankers and customers	Reduce traffic congestion.	• Fuel tanker delivery times must be scheduled so that they do not conflict with other deliveries. • Speed bumps must be installed along the access road to the site to control the speed of traffic entering the site. •	Incident reporting	Shell
8.	Employment Creation	Maximize employment benefits	• A formal employment protocol for the recruitment of labour will need to be followed. • All recruitment must be in-line with Shell's Employment Equity Policy which also promotes the employment of women to ensure that gender equality is attained as defined in the Employment Equity Act No 55 of 1998. • Where possible, priority must be given to job seekers from the local area. • Shell must build the capacity of employees through development plans, technical, health and safety training and provide them with relevant training certificates.	Shell's Employment Equity Policy Training Records and Certificates	Shell

5.4 Closure Plan – Decommissioning

Management and mitigation measures for the closure of the service station are included below. It must however be noted that this closure plan must be updated prior to decommissioning since a significant amount of time would have lapsed by the time the service station is decommissioned. Shell must liaise with GDARD prior to decommissioning to confirm decommissioning requirements in terms of the National Environmental Management Act (Act No. 107 of 1998). A detailed rehabilitation plan must also be developed prior to decommissioning the site.

DECOMMISSIONING PHASE						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
1.	Update EMPr	Ensure that the EMPr is up-to-date and appropriate for the decommissioning task	• Ensure that the updated and approved EMPr is available on site. • Ensure that equipment is in place to meet EMPr and excavation plan requirements. • Signed commitment from any sub-contractors to compliance with EMPr.	Copy of signed EMPr is available on site	Shell, EMO and Contractor	Prior to decommissioning phase
2.	Impacts on existing infrastructure, services and servitudes	Avoid damage or destruction of existing infrastructure in the near vicinity of the proposed activities.	• Prior to beginning any excavation or drilling activities the person(s) conducting the demolition must be familiar with the location of buried utilities that may be present around the site. These include water, electricity, sewage, gas, compressed air, communication and, close circuit television. • Should existing infrastructure need to be interrupted for decommissioning purposes, prior approval must be received from the relevant parties, before commencing with decommissioning.	Visual assessment on site and incident report	Removal Contractor, EMO and Shell	Prior to decommissioning phase
3.	Air Quality	Limit fugitive dust and exhaust emissions	• Dust suppression methods, such as wetting, must be applied where there are large tracts of exposed surfaces and in high wind conditions. • Dust generating activities (i.e. excavation, stockpiling, demolition) must be avoided in windy conditions. • The use of delivery trucks during construction must be limited to the designated areas and only trucks that comply with the relevant legislation must be used. • Building material and sand must be covered during transport to and from the site. • Soil and sand stockpiles must be covered with a tarpaulin. • All construction vehicles must be appropriately maintained to minimise exhaust emissions.	Visual Inspection	Removal Contractor and EMO	Throughout decommissioning phase

DECOMMISSIONING PHASE						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
4.	Groundwater Contamination	Minimize groundwater contamination during or after decommissioning.	• Any significant spills or leak incidents must be reported in terms of the NEMA and NEMWA. • An Emergency Response Plan must be in place for the site; this must clearly describe emergency procedures and include emergency contact numbers. • Accidental spills that may occur must be cleaned up immediately using a spill absorbent, which must then be disposed of at a licensed facility. • Use drip trays for any minor on-site mechanical repair work, refuelling and on site storage of vehicles/machinery. • Store all fuel and chemicals within secure and contained areas. • Ensure that backfill material is not impacted before use by the contractor. • The Contractor must notify the appointed Environmental Consultant must groundwater be encountered in the excavations in order to assess if hydrocarbons are present prior to it being disposed of. • Excavated soil must be stockpiled away from sensitive receptors and placed on sheeting surrounded by a soil berm and covered with an additional sheet to prevent intrusion of water. • Establish a material tracking system that tracks materials from ‘cradle to grave’ (e.g. Safe Disposal Certificates). • Soil samples must be taken from the base and sides of the UST excavation to determine whether or not the soil has been impacted during the lifespan of the UST.	Visual assessment on site and incident report	Removal Contractor, Environmental Control Officer, Hazardous Waste Disposal Contractor, EMO and Shell	Throughout decommissioning phase

DECOMMISSIONING PHASE						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
			• Excavated soil will be screened with a PID to ensure appropriate handling and disposal of soil. Should it be determined that the site has been impacted and the soil and/or groundwater have been contaminated, remediation will be in accordance with the National Environmental Management Waste Act (NEM:WA).			
5.	Surface Water Contamination	Manage potential impact to surface water resources as a result of: • Stockpiling of material which may wash into stormwater drains. • Uncontrolled use of area for ablution facilities • Uncontrolled use of area for cleaning of tools, equipment and vehicles • Accidental spills of hazardous substances.	• Any significant spills or leak incidents must be reported in terms of the NEMA and NEMWA. • An Emergency Response Plan must be in place for the site; this must clearly describe emergency procedures and include emergency contact numbers. • Accidental spills that may occur must be cleaned up immediately using a spill absorbent, which must then be removed by a licenced contractor. • Temporary stockpiles must be located away from stormwater drains. • All vehicles will be properly maintained to prevent leaks. • Any fuel stored on site must be kept in a bunded containment area. • Drip trays are to be utilised during daily greasing and re-fuelling of machinery and to catch incidental spills and pollutants. • Regular servicing and maintenance of machinery must be done at an appropriate workshop facility and not on site. • Drip trays are to be inspected on a weekly basis for leaks and effectiveness, and emptied when necessary. This is to be closely monitored during rain events to prevent overflow.	Visual assessment on site and incident report. The removal of soil from the UST excavation must be in accordance with the specifications of the excavation plan.	Removal Contractor, Environmental Control Officer , Hazardous Waste Disposal Contractor, EMO and Shell	Throughout decommissioning phase

DECOMMISSIONING PHASE						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
			• Ablution facilities during decommissioning must be regularly maintained and cleaned out.			
6.	Noise impacts associated with decommissioning activities.	Manage any potential noise impacts.	• The contractor will adhere to local authority by-laws relating to noise control. • Decommissioning activities will be restricted to regular working hours, i.e.: Monday to Friday (8am- 5pm). • Mechanical equipment with lower sound power levels will be selected to ensure that the permissible occupation noise is not exceeded. • Equipment will be fitted with silencers as far as possible to reduce noise. • All equipment will be adequately maintained and kept in good working order to reduce noise. • Neighbouring landowners must be informed prior to any very noisy activities being undertaken, e.g.: high intensity drilling. • A grievance procedure must be established whereby noise complaints can be received, recorded and responded to appropriately. • Construction workers and personnel will wear hearing protection when required.	Incident Report	Contractor, EMO and/or Shell	Throughout decommissioning phase
7.	Traffic impacts associated with the UST removal and required machinery.	Manage any potential traffic congestion.	• Heavy vehicles must have mobility on Chris Hani, Aerodrome and Southgate Roads at designated times, thus not adversely affecting rush hour traffic. • Co-ordination of movement of vehicles on and off site to reduce risks and prevent congestion on roads in the vicinity of the site. • Appoint a signalman during large vehicle movement to and from site.	Incident Report	Removal Contractor and EMO	Throughout decommissioning phase

DECOMMISSIONING PHASE						
Activity/Aspect		**Objective**	**Actions to be undertaken to Mitigate Environmental Impact**	**Parameters for Monitoring**	**Responsibility**	**Frequency / Timing**
#	**Description**		**Commitment / Actions Required / Key Controls**			
			• Erect signage so that road users are aware of site works.			
8.	Waste generation	Minimize the generation of solid and liquid waste, incl. hazardous waste, may contaminate the receiving environment (soil, groundwater, sensitive habitats) and adjacent properties. The old tanks, pipes and pumps are the primary "waste" generated during decommissioning together with minor quantities of rubble. Contaminated soil and groundwater may also be present.	• All hazardous material must be transported to a registered hazardous waste site for disposal by a licensed contractor. • The rubble must be disposed of at a registered landfill site, with proof of disposal certificates submitted to Shell. • Solid waste must be properly managed and disposed of in a licensed waste disposal facility and must comply with relevant legislation.	Visual inspection of site	Removal Contractor, EMO and Hazardous Waste Disposal Contractor	Throughout decommissioning phase
9.	Occupational Health and Safety	To minimize health and safety risks to site personnel and surrounding landowners/passers-by.	• The site must be fenced off to prohibit unauthorised access and site access must be strictly controlled. • All employees, contractors and sub-contractors to wear appropriate PPE. • Open excavations must be clearly marked. • All employees, contractors and sub-contractors must comply with Shell's Health and Safety Policy. • Appropriate health and safety signage must be displayed on site.	Visual inspection	PM, EMO and Contractor	Throughout decommissioning phase
10.	Loss of Employment	Manage the termination of the service station staff upon closure.	• Existing employees may be transferred to another Shell service station if feasible. • Employees must be given adequate notice prior to closure, to allow them time to seek alternative employment.		Shell	At closure

6. MONITORING

6.1 Water Monitoring

A specific plan to address any current contamination present in the groundwater will be developed and will align with the Shell remediation strategy where applicable. Currently, Shell undertakes annual groundwater monitoring of all its sites.

6.2 Waste

6.2.1 Waste Management Principles

During the project Shell will evaluate measures to:

a. Avoid the generation of waste and where such generation cannot be avoided, to minimise the toxicity and amounts of waste that are generated;

b. Reduce, re-use, recycle and recover waste;

c. Where waste must be disposed of, ensure that the waste is treated and disposed in an environmentally sound manner;

d. Manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts; and

e. Prevent the waste from being used for an unauthorised purpose.

The site shall monitor the quantities of waste generated, in tonnes, of the following will be maintained:

- General waste disposed;
- Hazardous waste disposed; and
- Recycled wastes.

An appointed environmental management officer shall conduct regular inspections of the Project site and activities related to the various phases pertinent to the expansion in order to identify any concerns an address these accordingly.

7. ENVIRONMENTAL AWARENESS TRAINING

In addition to health & safety inductions, all subcontractors and workers must be inducted on the site specific EA and EMPr requirements applicable. Toolbox talks must include an environmental component and records of training, including an attendance register, must also be kept on site.

The method statement must clearly indicate:

- What – a brief concise description of the task / activity to be undertaken;
- Who – a brief concise description of the personnel involved with undertaking the task / activity;
- When - a brief concise description of the sequence of actions with due commencement and completion dates of the task / activity to be undertaken;
- Where - a brief concise description and map / drawing of the locality of the task / activity to be undertaken;
- Why - a brief concise description of the importance and requirement of the task / activity to be undertaken; and
- How - a brief concise description of the methods to be implemented, materials and equipment to be used for the task / activity to be undertaken.

The contractor is required to provide and maintain a method statement for “solid waste management” including (but not limited to) the following:

- Details on littering;
- Good site housekeeping;
- Periodic removal of all rubble;
- No burial of waste on site;
- Waste separation;
- Hazardous waste;
- General waste;
- Reusable construction material;
- Recyclable waste;
- Demarcation of areas for waste storage;
- Provision of sufficient closed containers;
- Disposal of hazardous waste material at a licenced disposal site; and
- Provision of safe disposal certificates to Shell and the ECO.

The Contractor must provide method statements for the “handling and storage of oils and chemicals “which must include (but not limited to) the following:

- Clear labelling of dangerous and toxic materials;
- Details on chemical storage and
- Provision of Drip trays.

Contractors must provide and maintain a method statement for “cement and concrete batching” which must include (but not limited to) the following:

- Wearing of appropriate PPE during cement mixing;
- Storage of cement bags in a demarcated hazardous area and
- Physical removal and disposal of visible remains of concrete (solid or from washings) to a registered landfill site;

7.1 Dust

The contractor must provide and maintain a method statement for “dust control” which must include (but not limited to) the following:

- Inclusion of the details of the source of water to be utilized;
- Use of appropriate PPE including dust masks, when necessary;
- Undertake dust mitigation measures (e.g. wetting soil surface) before conducting dust generating activities; and
- Dust suppression must not involve chemicals.

7.2 Stockpiles

The following general recommendations apply to stockpiled material and it is the duty of the contractor to enforce these:

- Stockpiled material must be placed on easily accessible areas without any environmental damage;
- Stockpiles to be stabilised if signs of erosion are visible and
- Topsoil stockpiles must be monitored for invasive vegetation and demarcated as no-go areas.

7.3 Spills/ Leaks

The following general recommendations apply to spill and leaks, and it is the duty of the contractor to enforce these:

- Appropriate spill kits must be available on site;
- A spills register must be maintained on site. This must include details of the corrective action taken;
- Leaks / spills > 10 ℓ and/or that cause water pollution must be reported immediately to the Project Manager, Shell and ECO;
- Leaks and/or spills must be appropriately cleaned up, and disposed correctly;
- Appropriate spill kits must be available on site; and
- A spills register must be maintained on site. This must include details of the corrective action taken:

  - The procedure for responding to a spill/leak of manageable volume, involves mobilising to stop it at the source of the spill/leak. Containment is the next step in the process and if there is a fire risk or a need to control vapours, then foam will be used to blanket the spill. Absorbents and

neutralizers may also be used and when the situation is stabilised and confirmed as safe, then the spilled product is pumped into a mobile slop drum/ tank stored on site until removed by a contractor. Were foam, neutralizers or absorbents are used to respond to a spill the waste is treated and disposed of with records of all spills being kept.

7.4 Stakeholder Engagement

All registered I&APs will be provided with periodic updates regarding the project. Should any complaints be received from surrounding landowners; tenants and/or I&APs, these will be addressed via a Complaints and Incidents Register.

7.5 Eating Areas and Camp Crews

The contractor must provide and maintain a method statement for “Crew Camps and Construction Laydown Areas “which must stipulate designated eating areas and the provision of adequate closed refuse bins.

7.6 Health and Safety

The following general recommendations apply to health and safety and it is the duty of the contractor to enforce these:

- The construction site must be fenced off to prohibit unauthorised access and site access must be strictly controlled;
- All employees, contractors and sub- contractors must wear appropriate PPE;
- The site and crew must be managed in accordance with applicable and relevant Occupational Health and Safety Act;
- Emergency procedures in place prior to commencing work and to include but not be limited to: fire, spills, accidents to employees, use of hazardous substances and materials; and
- Appropriate health and safety signage must be displayed on site.

7.7 Emergency Systems for Major Incident Management

In the event of a major incident or spill, the spilled product must be contained in the concrete bunds surrounding the USTs to prevent the lateral spread of product to other areas of the site. If a major incident in the form of a tank fire or a loss of containment were to occur, the Emergency Response Procedure would be activated and firefighting and/or inter-bund drainage may be required depending on the nature of the incident. In both cases significant amounts of waste would be produced (product mixed with firewater). Suitable licensed liquid waste removal contractors would remove the waste from the site and undertake the necessary treatment offsite.

8. CONTACT DETAILS AND SIGNATURES

The contact details of relevant personnel must be provided in the table below (*Table 8.1*) **prior to the commencement of the Project**. The signatures of the Shell PM, SHEQ manager, Contractor(s) and EMO will signify that the mitigation, management and monitoring measures of this EMPr will be adhered as stipulated in this EMPr.

Table 8.1 Relevant Contact Personnel

Name	Contact Person	Contact Numbers
Shell Project Manager (PM)		
Shell SHEQ Manager		
Environmental Management Officer (EMO)		
Contractor		
Contractor		
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