

FINAL ENVIRONMENTAL MANAGEMENT PROGRAM

PROPOSED DEVELOPMENT OF THE SOL PLAATJE UNIVERSITY IN
KIMBERLEY,
NORTHERN CAPE PROVINCE.

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EXECUTIVE SUMMARY

The Department of Higher Education and Training (DHET) was formed in 2009 as a new Department with the responsibility to manage the post-school system. DHET has to expand the capacity of higher education, including the universities. The annual growth of scholars that need to study at a higher university is 4.7% and current universities are already over enrolled. Government policy as stipulated in the Higher Education Act, Act 101 of 1997 determines through section 20 that the Minister by notice in the Gazette may establish a university which is required to deliver through this act teaching, research and community service.

In 2010 the Minister of Higher Education and Training appointed two task teams to investigate the feasibility and possibility models for the establishment of Universities in the Northern Cape and Mpumalanga Province. These are the two Provinces in South Africa that do not have universities at the moment. Task teams investigated provincial and national needs and imperatives and made recommendations on the type, size and position of the two new institutions. Since November 2011, the Department of Higher Education and Training (DHET) has appointed a project management team to take forward the planning process under the guidance of a project steering committee, which includes academics from existing universities as well as representatives of the Premiers and of the National Institutes of Higher Education in the two Provinces. Academic work groups have been set up to flesh out the academic direction of each University. Technical work for the 2 universities started in October 2011 and Wits was appointed as project managers with a multi-disciplinary team that includes an architect, civil engineer, geotechnical engineer and urban planner.

This University is a national asset serving national interests and more specifically the interests of the Northern Cape. Kimberley was the preferred position for the new university in the Northern Cape for different reasons and includes the following: the position of the city, the range of retail and community facilities and it is an established tourism and recreation center. Kimberley has a well-developed civic bulk infrastructure and the best housing and student accommodation in the province. Kimberley is well located between Cape Town and Johannesburg, has both road and railway infrastructure and has an airport connecting it to major cities in South Africa.

The authorities have decided to name the new Northern Cape University the Sol Plaatje University. The Sol Plaatje University in Kimberley will be a comprehensive university of 5000 FTE students to be enrolled in the medium term. The University will open its doors to new students as from the beginning of 2014 and will be operating, for the time being, from a single campus in Kimberley.

The **transformation of undeveloped, vacant or derelict land to institutional use inside urban area where the total area to be transformed is more than 5ha** is a listed activity according to the Environmental Impact Assessment (EIA) Regulations R543, 2010 and it must be adhered to in terms of Sections 24(2)(a) and 24(d) of the National Environmental Management Act (NEMA), Act no 107 of 1998. The proposed activity triggers **Listing Notice 1, R544 of June, 2010** and the following activities were registered: **Activity No 23(ii) & Activity No 24.**

This listing requires the **Applicant** to carry out a Basic Assessment Process.

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	3
1. INTRODUCTION	5
2. OBJECTIVES OF THE EMPr	5
3. LEGAL REQUIREMENTS.....	6
4. ENVIRONMENTAL MANAGEMENT AND RESPONSIBILITIES	7
4.1 Resource allocation and duties.....	7
4.1.1 Environmental Control Officer	7
4.1.2 Task Team for the Development	7
4.2 Performance	8
4.3 Reporting	8
5. ENVIRONMENTAL MANAGEMENT MEASURES	9
5.1 Description of development	9
5.2 Development aspects	9
5.2.1 Planning and Design Phase	10
5.2.2 Site preparation & Construction Phase	10
5.2.3 Operational Phase	10
5.2.4 Decommissioning Phase	10
6. ENVIRONMENTAL MANAGEMENT PLAN	10
6.1 Planning phase	11
6.2 Preparation & Construction phase	13
6.3 Operational phase	15
6.4 Decommissioning / closure	15

ABBREVIATIONS:

BAR	Basic Assessment Report
BID	Background Information Document
DAFF	Department of Agriculture, Forestry and Fishery
DEA	Department of Environmental Affairs
DENC	Department of Environment and Nature Conservation
DWA&E	Department of Water Affairs and Environment
EA	Environmental Authorization
EAP	Environmental Assessment Practitioner
EAR	Environmental Audit Report
ECA	Environmental Conservation Act, Act No 73 of 1989
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr	Environmental Management Program
FBDM	Fraancis Baard District Municipality
FET	Full-time equivalent Training
I&AP	Interested and Affected Parties
NEMA	National Environmental Management Act, Act No 107 of 1998
NEM:WA	National Environmental Management: Waste Act, Act No 59 of 2008.
NIHE	National Institute of Higher Learning
NMT	Non-Motorised Transport
PPP	Public Participation Process
SABS	South African Bureau of Standards
SPLM	Sol Plaatje Local Municipality
RoD	Record of Decision

It is assumed that all information received from the owner and specialists have been correct.

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1. INTRODUCTION

The EMPr describes the methods and procedures for mitigating potential impacts and monitoring thereof. It is however not a specification of the exact methods to be applied. The document aims to provide a guide towards the management, mitigation and monitoring of environmental impacts associated with the different phases of development in terms of the National Environmental Management Act (Act 107 of 1998).

The proposed development of a university in Northern Cape was planned according to the principles of section 2 of NEMA, 107/1998 where people and their needs was placed at the forefront of its concern. The development will serve the public of Kimberley, future students and staff of the University's their physical, psychological, developmental, cultural and social interests equitably. Possible impacts were identified and will have minimum impact on the environment if mitigation measures are implemented. Therefore the development will be socially, environmentally and economically sustainable.

Specialist assessments to determine possible impacts were evaluated and incorporated in the EMPr. The following specialist recommendations were included in the EMPr :

- Social-economic assessment
- Traffic assessment, vehicle and no-motorised traffic.
- Ecological assessment
- Heritage assessment
- Civil Engineering: water provision, sewerage capacity and storm water management.
- Electrical engineering:

2. OBJECTIVES OF THE EMPr

The key objectives of an EMPr are to reduce or eliminate possible negative environmental impacts by giving due consideration to any potential impacts already identified in the Basic Assessment (BA) process and to ensure that the environment is protected during the construction and operational phases. When and if the quality of the environment can be improved, it should be investigated and implemented where possible. Minimal environmental impacts or damage during the construction and operational phase of the development can be achieved through the following:

- Prevent possible negative socio-economic impacts on Kimberley
- Mitigate the impact of 900-1000 cars that will be additional to existing traffic in the CBD of Kimberley.
- Prevention of accidents with students that use bicycles or have to walk from their residence to the classrooms.
- Prevent possible air pollution in the CBD with more cars that drive through or idle in the city centre.
- Mitigate visual impact.
- Keep as much as possible natural vegetation on the vacant stand. Rehabilitate area with the planting of indigenous plants and trees.
- Improve biodiversity with indigenous gardens on the University's premises,
- Implement an integrated waste management plan,
- Promote reduce, re-use and recycling of waste,
- Final rehabilitation of area after construction is completed.
- Provide bulk infrastructure such as clean water and sewerage system without any negative impact on the rest of Kimberley.

3. LEGAL REQUIREMENTS

The legal requirements applicable to the development are:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
Advertising on Roads and Ribbon Development Act, Act No 21 of 1940	Advertising on the municipal and national roads (N12)	Dept of Public works	1940
The Higher Education Act, Act No 101 of 1997.	Academic programmes to be offered.	Dept of Higher Education	1997
Promotion of administrative Justice Act, Act No 3 of 2000.	Academic programmes	Dept of Public Works	2000
Labour Relations Act, Act No 66 of 1995.	Labour disputes	Dept of Labour	1995
Planning and Development Act -	Development and construction of buildings for the university	Dept of rural Development	2010
National Environmental Management Act, Act No 107 of 1998.	Environmental Authorization	Dept of Environment	1998
National Heritage Resources Act, Act No 25 of 1999.	No heritage sites were found.	Dept of Arts and Culture	1999
Higher Education Act, Act No 101 of 1997.	Development of new universities.	DHET	1997
Constitution of the Republic of South Africa. Act No. 108 of 1996.	Rights of all persons involved.	Parliament	1996
National Water Act, Act No. 36 of 1998.	Consider possible impacts in water resources where bridges will be built and water usage in general.	D Water Affairs and Forestry	1998
National Environmental Management: Biodiversity Act, Act No 10 of 2004.	Consider possible impacts on the biodiversity of the area where construction will take place.	Department of Environment	2004
National Environment Conservation Act, Act No 73 of 1989.	Consider possible impacts on conservation for the specific area where development will take place.	Department of Environmental Affairs	1989
National Roads Act, Act No 7 of 1998.	Impact on R40 road	Department of Public works	1998
National Heritage Resources Act, Act No. 25 of 1999.	No heritage sites were found	Department of Arts and Culture	1999
Occupational Health and Safety Act, Act No 85 of 1993.	Health issues during construction of the university and of the students and staff of the university during the operational phase.	Department of Labour	1993
Promotion of Access to Information Act, Act No 2 of 2000.	All documentation have to be available for consideration by any I&AP	All Departments	2000
Electricity Regulation Act, Act No 4 of 2006.	Electricity supply for the university	Department of Environmental Affairs	2006
National Environment Management: Waste Act, Act No 59 of 2008.	Waste will be generated during construction and the operational phase.	Department of Environment	2008
EIA regulations as listed in Government Notices R543 and R544 (20 June 2010)	Activities that trigger listed activities have to be registered at DEA	Department of Environment	2010

The **Environmental control Officer (ECO)** and the **Task Team For The Development/Contractor** shall note that the obligations imposed by the Environmental Management Program (EMPr) are legally binding in terms of legislation during preparation, construction and operational phase as described in the Basic Assessment Report. The EMPr informs and binds the **Task Team For The Development/Contractor** to their duties, with particular reference to the prevention and mitigation of environmental impacts caused during the construction and operational phase.

4. ENVIRONMENTAL MANAGEMENT AND RESPONSIBILITIES

The recommendations within this document act as **guidelines** for environmental management. However, recommendations may be altered or added onto at the discretion of the **Task Team For The Development/Contractor** after consultations and discussions with all affected parties (i.e. the authorities, neighbours, Registered I&AP).

4.1 RESOURCE ALLOCATION AND DUTIES

To ensure that this EMPr is implemented, the following staff resources will have to be made available:

4.1.1 Environmental Control Officer (ECO)

The ECO has to be appointed by the applicant for the construction phase of the development responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in the authorization, dated 26/03/2014 are implemented and ensure compliance with the provisions of the EMPr. The ECO have the following duties:

- **Monitor** the implementation of the EMPr.
- **Advise** the **Task Team For The Development** on environmental issues during the implementation of the EMPr.
- Continuous **auditing** of the construction activities for the adherence to the EA conditions and EMPr. Auditing / Site inspections have to be conducted on a monthly basis to notify and advise the **Task Team For The Development and additional workers/sub-contractor** on environmental issues during development, preparation and construction phase.
- **Monthly auditing reports** have to be compiled and sent to DEA Compliance Section until the end of the construction phase.
- **Identify** problem areas as soon as possible and **provide action plans** to avoid further environmental damage.
- Review the **Task Team For The Development proposal for impact and pollution control** measures and advise on their adequacy.
- **Report** significant environmental incidents to DEA and advise the **Task Team For The Development** thereof during the development / construction phase.
- **Communication with the public during the construction phase** – receives and resolves problems or complaints.
- Make alterations to the EMPr if necessary.

4.1.2 Task Team For The Development

The **Task Team For The Development** has the responsibility for implementing the management measures contained in this document during the construction phase. The **Task Team For The Development** has the following duties:

- Apply for necessary permits at the DAFF should the removal of protected species, medical plants and “data deficient” plants species be required. Copies of the permits have to be submitted to the Department **(conditions 26&27)**.
- Obtain permits from SAHRA for the construction of protected buildings and areas of heritage importance. Copies of the permits have to be submitted to the Department **(conditions 28&29)**
- Establish an effective **environmental control program**.
- Establish **routine management, liaison and reporting** systems and prepare management reports.
- Implement the **Storm Water Management Plan** of Sol Plaatje Local Municipality (SPLM) **(Condition 13.2)**.
- Operate the Opperheimer Memorial Park that is zoned as a public open space according to the **Open Space Management Plan** of the SPLMunicipality **(condition 13.4)**.
- **Implement** a Traffic Management Plan as recommended by Vela VKE, December 2013 **(Condition 13.5)**.
- Implement the Disaster Management Plan of SPLM if necessary. It must be reviewed every year **(condition 13.6)**.
- **Monitor** environmental aspects and advise the **SOL PLAATJE UNIVERSITY, KIMBERLEY Staff** of actions required.
- **Manage** the staff to implement methods to prevent potential negative environmental impacts and recommend safeguards.
- Implement the Storm water management plan of SPLM **(Condition 13.2)**.

- **Site inspections** have to be conducted on a **daily basis** to notify and advise the **Contractor and ECO** on environmental issues.
- **Liaise** in collaboration with the ECO with adjacent and nearby Land owners.
- **A Complaint Register** must be kept at the **Task Team For The Development Office**.

4.2 PERFORMANCE

The **Task Team For The Development and ECO** shall compile a monitoring and auditing plan, in order to ensure that all of the environmental management measures are implemented and are effective. The ECO shall review the Environmental Management Performance of the **Task Team For The Development** on a regular basis. The **Task Team For The Development** shall be deemed not to have complied with the EMPr if:

- There is evidence of the contravention of any of the conditions of the EMPr.
- The **Task Team For The Development** fails to comply with corrective measures or other instructions by the ECO.
- The **Task Team For The Development** fails to respond to complaints from the public.

4.3 REPORTING

A copy of the Environmental Authorization/Record of Decision (EA/RoD) and the EMPr must at all times be available to all relevant staff as well as general public, **Task Team For The Development** and sub-contractors should be acquainted with the contents thereof.

The **complaint's register** have to be on site and all complaints recorded. Complaints shall be investigated, corrective action implemented and feedback given to the complainant on the issues raised within 24 hours.

The ECO shall conduct compliance audits once per month and compile a summary in terms of the EMPr. The reports have to be compiled, summarized and sent to DEA Compliance Section on a quarterly basis until the end of the construction phase. Reports must be available on request of the Public and I&AP.

5. ENVIRONMENTAL MANAGEMENT MEASURES

5.1 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The university will be fully integrated spatially with the City of Kimberley in 3 linked areas south of the existing CBD. The university will consist of 3 distinct areas which will consist of a Northern, Central and Southern campus. The university will accommodate 5000 students of which 4000 will be accommodated on the premises. The proposed project includes:

- The **Northern Campus** which is a site nearest to the CBD and will consist of academic and admin buildings with the existing Opperheimer Park as its central focus. In the Northern Campus area, 25 buildings with an area of 60 063m² will be developed.
- The **Central Campus** will be southwest of the Northern Campus with a mixture of academic buildings and student residences. In the central campus area 36 buildings with a total area of 66 751m² will be developed; mostly 3 story buildings will be constructed.
- The **Southern Campus** will be in the vicinity of Hoffe Park Sports Stadium and a mixture of student residences and sports fields will be developed. In the Southern Campus area, 22 buildings of 36 528m² will be developed.

5.2 DEVELOPMENT ASPECTS

The development aspects are divided into the planning and design, preparation & construction, operational and decommissioning phases and are as follows:

5.2.1 Planning and Design Phase

The **Task Team For The Development** is responsible for the following aspects:

- The commitment to a conservation approach during the planning phase;
- Environmental friendly, sustainable urbanization, layout and design plans. Sustainable urbanization involves a combination of strategies and elements that together can produce more energy-efficient, liveable communities. It includes the design, mobility, connectivity, climate & energy and economy.
- Socio-economic impact on Kimberley.
- Develop a code of good conduct for construction workers in consultation with the local municipality.
- Economic advice and management.
- Increase of traffic has to be mitigated to be acceptable for the community of Kimberley.
- Mitigation of air pollution in the CBD caused by the increased traffic.
- Planning of the aesthetic quality to ensure minimal visual impact of the site.
- Landscaping plans to improve biodiversity in the area.
- The layout Plan of the UNIVERSITY must have a minimal impact on the vegetation and removal of trees.
- The necessary plant destruction permits must be obtained from the regulating authorities prior to construction and submit to the Department (**condition 25&26**).
- A specialist must assist the surveyor to ensure that the above recommendations are followed.
- Necessary permits for buildings and areas of archaeology value must be obtained and submit to the Department (**condition 28&29**).
- Ensure that a Water Use Licence is obtained from the Department of Water Affairs if necessary (**condition 25**).
- Provide bulk infrastructure such as clean electricity, water and sewerage system without any negative impact on the rest of Kimberley.
- The **University** should establish a Recruitment/Labour Desk before construction start.
- The employment selection process should seek to promote gender equality and the employment of woman wherever possible.
- The need to implement a training and skills development program for locals prior to the commencement of the construction phase should be investigated. The aim should be to maximize the number of locals employed during the construction phase.

5.2.2 Site preparation & construction Phase

The members of the **Task Team For The Development** are responsible for the following aspects:

- Site establishment and preparation –storage area for construction equipment.
- Site preparation – removal of vegetation and levelling of terrain.
- Waste management of additional construction material.
- Rehabilitation, landscaping and planting of vegetation on the site.
- The proponent must be committed to a conservation approach of practice and the actual footprint of construction/disturbance must be kept to a minimum;
- As much of the natural environment as possible must be conserved (minimal construction of access roads and bush clearing);
- Relocation of important species, identification and demarcation of specimens and sub-habitats not to be disturbed will have to be done beforehand by a specialist;
- Important species (fauna as well as flora) that will be threatened by the development must be relocated to safer habitats by suitable specialists;
- Preventative erosion control measures to be put in place.
- The University should establish a Recruitment/Labour Desk before construction started.
- The need to implement a training and skills development program for locals prior to the commencement of the construction phase should be investigated. The aim should be to maximize the number of locals employed during the construction phase.
- The employment selection process should seek to promote gender equality and the employment of woman wherever possible.

5.2.3 Operational Phase

Task Team For The Development is responsible for the following aspects:

- Operations associated with the infrastructure of the university must have minimum impact on the environment.
- Prevention of ground water & stream pollution.
- Prevent the deterioration of the fauna and flora on the proposed 3 Campuses of the University.
- Plan to remove minimal vegetation and cut only the necessary trees.
- Waste Management on the premises of the University.
- Ensure good air quality by managing traffic in and around the university
- Prevent noise pollution.
- Mitigate visual impact.
- Provide healthy environment to students, staff of the university and neighbouring residents.
- Final rehabilitation with indigenous vegetation of area after construction is completed.
- Maintenance staff of gardens must be educated with regards to the importance of biodiversity;
- The operational phase must be monitored by **SOL PLAATJE UNIVERSITY, KIMBERLEY** staff/officials to ensure that adequate mitigation measures are in place and to take reactive measures in places where impacts pose problems.

5.2.4 Decommissioning Phase

Task Team For The Development is responsible for the demolishing of the buildings.

6.

ENVIRONMENTAL MANAGEMENT MEASURES

The following table forms the basis of this EMPr for planning, preparation and operational phases of the project. The EMPr should guide the **Task Team For The Development** and it should be implemented as an auditing list during the preparation/construction and operational phase. Daily compliance with the EMPr should be monitored by the **Task Team For The Development**. The ECO should conduct compliance audits on a monthly basis and summarize the reports to report quarterly to DEA till the final construction and rehabilitation of construction site is completed.

6. ENVIRONMENTAL MANAGEMENT MEASURES:**6.1 PLANNING AND DESIGN PHASE**

ASPECT/IMPACT	MITIGATION MEASURE	RESPONSIBILITY	FREQUENCY
Layout and Design	<ul style="list-style-type: none"> ○ The layout and design of the Sol Plaatje University and all associated infrastructure must comply with the conditions as described in the BAR and the EA/RoD. ○ The proponent must be committed to a conservation approach during the planning phase. 	Task team for the development	Design and planning
Land uses	<ul style="list-style-type: none"> ○ The different land owners have to be accommodated in the planning of the Sol Plaatje University, Kimberley. 	Task team for the development	Design and planning
Socio-economic:	<ul style="list-style-type: none"> ○ Job opportunity. ○ Population influx. ○ Business opportunities – Create business areas. ○ Traffic and safety hazards. ○ Service and community development. ○ Code of conduct for staff and students. ○ Prepare an “Emergency preparedness plan” according to the disaster management plan of SPLM. 	Task team for the development	Design and planning
Job opportunities	<ul style="list-style-type: none"> ○ Local first policy for low skilled jobs. ○ Establish a Recruitment/Labour Desk for the construction phase. ○ Develop a code of good conduct for the construction phase. ○ Implement a training and skills development programme for locals – maximise the number of local employment. ○ Database of local firms that qualify as potential service providers (construction, catering, security, recycling of waste and waste collection). ○ Dismissal procedures have to be in place before appointing staff. Dismissal procedures have to be according to Labour laws. 	Task team for the development	Design and planning
Traffic	<ul style="list-style-type: none"> ○ Increase of traffic in and around the university. ○ Congestion of traffic at crossings of roads. ○ Reduce air pollution direct associated to the traffic in and around the university. ○ Save crossings for pedestrians. ○ Save walkways for pedestrians and cyclists. ○ Enough parking for students, staff and visitors of the university. ○ Prepare a “Traffic management plan” according to the suggestions of the traffic assessment. 	Task team for the development	Design and planning

ASPECT/IMPACT	MITIGATION MEASURE	RESPONSIBILITY	FREQUENCY
Bulk services: Water provision Sewerage management Waste management Storm water plan and erosion management	<ul style="list-style-type: none"> ○ Clean water has to be available at all time to the university. Permitted purification plant. ○ Ervens planned to be developed for the university have to be connected to the main sewer system. ○ A system to separate grey and black water. ○ Sewerage from the university has to be accommodated at the existing WWTP. Permitted purification plant. ○ Waste has to be stored on a dedicated area. ○ Waste has to be removed on a regular basis to a permitted waste site. ○ Storm water management design must be in such a manner that no erosion is caused. ○ Water harvesting / capturing of water from roofs – reduce storm water impact. ○ Plan to prevent erosion by only removing vegetation 1 week before construction started. ○ Prepare a landscaping plan to plant fast growing indigenous trees to mitigate possible erosion impact. 	Task team for the development	Design and planning
Protected plant spp, sensitive habitat	<ul style="list-style-type: none"> ○ The removal of vegetation has to be planned in such a manner that it is only removed on the proposed development areas and associated infrastructure. ○ Obtain permission from the ECO to proceed with the clearing of vegetation from the development area. No protected trees may be removed without the permits from the DAFF if protected tree species are located. ○ Plan to translocate protected/sensitive plant species to similar habitats ○ Sensitive habitats must be avoided. ○ Landscaping plan for university must be planned with indigenous vegetation. ○ Prepare an “Open space management plan” according to the “Open space management” of SPLM. 	Task team for the development	Design and planning
Buildings / areas of archaeology value	<ul style="list-style-type: none"> ○ Permits have to be obtained from SAHRA before construction of identified buildings of archaeology value. ○ Permit to construct on the old Malay Camp. 	Task team for the development	Design and planning

6.2 THE PREPARATION & CONSTRUCTION PHASE

ASPECT/IMPACT	MITIGATION MEASURE	RESPONSIBILITY	FREQUENCY
Site establishment	Inform the STAFF/CONTRACTORS of: <ul style="list-style-type: none"> ○ All staff must be committed to a conservation approach of practice. ○ The requirements of EMPr. ○ That no vegetation may be removed before permission from the ECO. ○ Locate site office and storage area for the CONSTRUCTION material. ○ A complaint register have to be available to the public at all times. 	Task team for the development & ECO.	Start of project
Site preparation	<ul style="list-style-type: none"> ○ Keep actual footprint of construction site to the minimum. ○ If vegetation has to be removed, it has to be handled according to the EA conditions and Landscaping plan. It has to be re-vegetated in similar habitats where protected plants can be established. ○ The levelling or excavation of the constructed areas has to be environmental friendly. ○ If sites of cultural significance or heritage importance are discovered during the site preparation period the work must cease immediately. The area must be secured and an archaeologist should be contacted. Site preparation may proceed in the area once agreed to mitigation measures that have been implemented and approved by the Heritage Resources Agency. 	Task team for the development & ECO.	On going
Storm and runoff water management	<ul style="list-style-type: none"> ○ Vegetation may only be removed on the demarcated construction areas to prevent the rush down of run-off water during a storm event. ○ Construction of infrastructure has to be started within a week (1 week) after the removal of plants to limit duration that soils are exposed. Storm water has to be managed and channelled on the construction site during site preparation to prevent erosion. ○ Prevent the discharge of polluted water or water containing suspended materials into seepage or drainage areas. ○ Prevent antiseptic liquids entering storm water channels. Antiseptic liquids should be handled and stored in a safe place. ○ Sandbags have to be used to prevent water run off if necessary. ○ The re-vegetation of constructed area with indigenous plants has to start immediately after construction. ○ Work according to the “Strom water management Plan” to prevent erosion. 	Task team for the development & ECO	On going
Waste management:	<ul style="list-style-type: none"> ○ Keep the construction area, construction offices and other facilities free of domestic waste. ○ A dedicated storage area has to be provided for general waste. ○ Ensure that no illegal dumping of waste on adjacent properties take place. ○ Do not dump waste of any nature into storm water systems. 	Task team for the development	On going

ASPECT/IMPACT	MITIGATION MEASURE	RESPONSIBILITY	FREQUENCY
Access	<ul style="list-style-type: none"> ○ Make use of existing access roads. 	Task team for the development & ECO	On going
Flora	<ul style="list-style-type: none"> ○ Be aware of any medical or protected plant species. ○ Replant trees that have to be removed in a similar habitat. ○ Plant yearly additional indigenous trees in the area. ○ Remove alien invader species. 	Task team for the development & ECO	On going
Fauna	<ul style="list-style-type: none"> ○ Avoid sensitive areas such as rocky outcrops, wetlands, forests areas. ○ Removal of large trees has to be restricted to the minimum. ○ Construct owl nests to control mice if needed.. 	Task team for the development & ECO	On going
Air quality	<ul style="list-style-type: none"> ○ Access dirt roads should be sprinkled with water using water tanks. ○ Vehicles have to drive slowly to create less dust. 	Task team for the development & ECO	On going
Noise pollution	<ul style="list-style-type: none"> ○ Regular servicing of vehicles to prevent high pitched roars ○ Construction workers should be alerted not to scream or hoot at the public or near residential areas. 	Task team for the development & ECO	On going
Social & Health Aspects. Safety and security	<ul style="list-style-type: none"> ○ The Task Team For The Development must comply with the National building Regulations and Building Act (Act no 103 of 1997). ○ The Task Team For The Development must comply with the Occupational Health and Safety Act, 1993 (Act no. 85 of 1993). ○ Health and Safety officer have to be on site during working hours. ○ Ensure that the handling of equipment and material is supervised and adequately instructed. ○ Ensure that construction vehicles are under control of competent personnel. 	Task team for the development & ECO	On going

6.3 OPERATIONAL PHASE

ASPECT/IMPACT	MITIGATION MEASURE	RESPONSIBILITY	FREQUENCY
Ecological impact	<ul style="list-style-type: none"> ○ Removal of alien invasive species and regular monitoring thereof. ○ All pristine areas outside the proposed development areas have to be protected at all time. ○ Use indigenous vegetation for the gardens. ○ Gardens of the university have to improve biodiversity. 	Task team for the development	On going
Solid Waste management	<ul style="list-style-type: none"> ○ Ensure that no illegal dumping of waste on the adjacent properties take place. ○ Do not dump waste of any nature into drainage lines, stream or pristine natural areas. ○ Dedicate storage areas for general and recycled waste has to be neat and tidy. ○ Remove recycled waste on a regular basis to prevent fire hazard. 	Task team for the development	On going
Social impact	<ul style="list-style-type: none"> ○ The Emergency preparedness plan must be reviewed annually. ○ Workers have to be provided with a code of conduct to address the required standards in terms of the universities standards. ○ Dismissal procedures have to be in place before appointing staff. Dismissal procedures have to be according to Labour laws. 	Task team for the development	On going

6.4 DECOMMISSIONING/CLOSING PHASE

ASPECT/IMPACT	MITIGATION MEASURE	RESPONSIBILITY	FREQUENCY
Construction	Demolishing of associated structures and buildings.	Task team for the development	End of project

This document acts as a guideline for the Management of **TASK TEAM FOR THE DEVELOPMENT**, the appointed ECO and relevant staff members of SOL PLAATJE UNIVERSITY. The content should be implemented as an auditing list and compliance should be monitored.