DRAFT SECTION 24G ENVIRONMENTAL IMPACT REPORT

S24G KHALINKOMO TOWNSHIP ESTABLISHMENT, WESSELSBRON

DESTEA REF NO: 24G/15/19/02 (AMENDED APPLICATION)





ENVIRONMENTAL & SOCIAL SCIENTISTS

NOVEMBER 2020

S24G KHALINKOMO TOWNSHIP ESTABLISHMENT, WESSELSBRON DRAFT EIR

ENVIRONMENTAL IMPACT REPORT

Environmental Impact Report ("EIR") in terms of the Section 24 G (1) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (as amended) ("NEMA").



PROJECT INFORMATION

REPORT TITLE: Environmental Impact Report

REPORT STATUS: Draft

PURPOSE OF REPORT: The purpose of this EIR is to present the proposed development and the need for the development; provide details of the Environmental Assessment Practitioner ("EAP") appointed to undertake the impact assessment process; provide an overview of the public participation process; and to set out the environmental outcomes, impacts and residual risks as a result of undertaking the proposed development.

PROJECT TITLE: S24G Khalinkomo Township Establishment, Wesselsbron

APPLICANT: Nala Local Municipality

PROJECT CONSULTANT: Vexocom (Pty) Ltd

ENVIRONMENTAL CONSULTANT: NSVT Consultants

REPORT COMPILATION RESPONSIBILITIES

REPORT COMPILED BY:

Lorato Tigedi *Pr. Sci. Nat.* (400161/09) South African Council for Natural Scientific Professions Environmental Assessment Practitioner



EXECUTIVE SUMMARY

NSVT Consultants as independent EAP was appointed by Vexocom (Pty) Ltd on behalf of Nala Local Municipality to conduct the Environmental Impact Assessment Report for rectification and continuation process in terms of Section 24G of NEMA, 1998 for commencing with an activity without obtaining an Environmental Authorisation, *i.e.* the change in land use from agricultural to another land use whereby the informal settlement was established in 2001 and communal taps provided in 2016. The Free State Department of Human Settlement is the implementing agent assisting the municipality for the proposed development. The municipality has deemed it necessary to formalize Khalinkomo Informal Settlement so that they can provide basic essential services to the area and for the residents to have serviced stands with stand number so that they are included in the operations and development planning of the municipality but the number of residential units were not enough to addresss their housing backlog, therefore, an additional 80 hectares was iincorporated as part of the project continuation process. The formalization would have caterered for 404 erven with associated amenities, which is less compared to the 1504 erven if the additional area is incorporated, which will provide 1476 residential units.

The proposed site is situated on Farm Oranjevlei 174, in Monyakeng, Wesselsbron. Wesselsbron is located approximately 5km from the proposed site and a portion of the development is within the urban edge of the municipality, on an area earmarked for residential development in the Spatial Development Framework whereas the remainder is municipal commonage. In the vicinity of the proposed site, there is an artificial wetland formedby surface runoff channled from the informal settlement through an informal structure and a water pan. There are also long-term sewage leaks, which possess certain wetland characterisitcs but do not carry any increased conservational significance relative to any surroundings. The additional area has been subjected to long-term overgrazing and well as the undeveloped surroundings, thus gazing management practices needs to be implemented. With the proposed township establishment, which would incorporate formalization of the informal settlement, the municipality will be in line with infrastructure development plans, e.g. Free State Development, Growth and Development Strategy and also respond to national plans, e.g. National Development Plan 2030.

During the site inspection, it was evident that the portion of the proposed site where the informal settlement is established, is totally transformed and the additional area has been subjected to grazing thus not in a pristine condition. However, the surrounding area to the northern and eastern area are vacant and undeveloped and Monyakeng is on the western side. Impacts that could occur as a result of the proposed development and for key issues, it was deemed necessary to obtain specialists input. Therefore, Heritage, Ecological Assessment and Wetland Delineation studies were undertaken. The negative impacts that could occur during the construction phase included socio-economic aimed at addressing the high unemployment rate in the area and provision of bulk services to the proposed area, whereby investigations were undertaken to ensure that the development will be able to be connected to the existing bulk services connections and the road network, loss of flora, potential habitat for fauna, impact on heritage artefacts, nuisance due to noise and dust generation, potential risks of soil erosion and alien invasive species infestation and effect on water quality and quantity of the nearby water pan, and potential spreading of HIV/Aids.



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The positive impact that would occur is job creation that will occur as a result of the development, although it will be short-term thus measures have been outlined so that the local community are afforded the opportunity to be recruited. The significance of these impacts were assessed with and without mitigation using the Significance Assessment Methodology based on the nature of the impact, extent and duration, magnitude, reversibility, loss of natural resources, probability, whether it is cumulative and has any residual risks. The significance prior to mitigation ranged between medium to very-high and with outlined mitigation their it was reduced to low with input and recommendations from specialist. However, some mitigation outlined must be undertaken prior to commencement of construction activities, *e.g.* Comprehensive Health Assessment. The impact with a medium significance rating is for the spread of HIV/Aids, which needs to be adressed as HIV/Aids in the area is very prevalent thus it's imperative to implement the measures but support from the Department of Health should be sought if the significance is to be reduced further.

As part of the development, technical studies were undertaken, i.e. civil services, Geotechnical investigation and floodline determination due to the loocation of the proposed site in relation to the proposed site. From the findings, there are no reason to suspend the proposed development from continuing, however, additional aspects needs to be in place, e.g. construction of stormwater management and infrastructure to connect to the existing bulk line.

From the Public Participation Process undertaken no objections were received during the notification phase but draft Environmental Impact Report will be forwarded to the registered Interested and Affected Parties, Department of Agriculture, Department of Water and Sanitation, South African Heritage Resources Agency and Eskom for review and thereafter the input will be incorporated into the final report before being forwarded to DESTEA for further processing.

Given the above information, the Environmental Assessment Practitoner is of the opinion that the provided recommendations especially the incorporation of the 250m protective buffer zone must be included around the water pan to preserve the remaining ecological integrity and functionality, a Comrehensive Pan Health Assessment, the layout design must include stormwater management measures, erosion control measures must be in place. The mitigation measures outlined in the Environmental Impact Assessment Report are deemed adequate in addressing identiied impacts and Environmental Management Programme be once approved by the competent authority it must be implemented.



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ACRONYM	DESCRIPTION
DWS	Department of Water and Sanitation
DESTEA	Department of Economic, Small Business Development, Tourism
	and Environmental Affairs
EIA	Environmental Impact Assessment
EAP	Environmental Assessment Practitioner
EIR	Environmental Impact Report
EMPr	Environmental Management Programme
FSHRA	Free State Heritage Resources Authority
IDP	Integrated Development Plan
NLM	Nala Local Municipality
NDP	National Development Programme
NEMA	National Environmental Management Act, 1998
NWA	National Water Act, 1998
NHRA National Heritage Resources Act, 1999	
I&APs	Interested and Affected Parties
SAHRA	South African Heritage Resources Agency

LIST OF ABBREVIATIONS



1 PROJECT DETAILS

1.1 INTRODUCTION

NSVT Consultants was appointed by Vexocom (Pty) Ltd on behalf of *Nala Local Municipality* to lodge an application to rectify unlawful commencement of EIA listed activities associated with the formalization of Khalinkomo Informal Settlement in Wesselsbron. This Environmental Impact Assessment Report constitutes a formal application for the rectification and continuation to the *Free State Department of Economic. Small Business Development, Tourism and Environment Affairs* (DESTEA) in terms of Sections 24(G) and 24(F) of the National Environmental Management Act (Act 8 of 2004) (as amended).

1.2 DETAILS OF THE APPLICANT & PROJECT CONSULTANTS & EAP

1.2.1 DETAILS OF APPLICANT

Project Applicant	Nala Local Municipality		
Contact Person	Nokufa Elizabeth Radebe		
Postal Address	P.O. Box 12, Bothaville, 9660		
Physical Address	8 Preller Street, Bothaville, 9660		
Telephone	056 514 9200	Facsimile	056 515 3922
Email	nokufar@gmail.com	Cell	082 499 4708

1.2.2 DETAILS OF THE PROJECT CONSULTANTS

Project Consultants	Vexocom (Pty) Ltd		
Contact Person	Sydney Maesela		
Physical Address	8 Pony Street; Tyger Valley Office Park; 0081		
Telephone	081 370 9400	Facsimile	086 667 8300
E-mail	sydney@xvexocom.co.za	Cell	072 045 2339



1.2.3 DETAILS OF ENVIRONMENTAL ASSESSMENT PRACTITIONER

Environmental Consultants	NSVT Consultants		
EAP	Lorato Tigedi Pr. Sci.	Nat.	
Postal Address	P. O. Box 42452, Heu	welsig, 9332	
Telephone	(051) 430 1041/2	Facsimile	086 239 9133
E-mail	lorato@nsvt.co.za	Cell	082 784 8259
Qualifications	B. Sc (Natural Science) B. Sc Hons (Wildlife)	Experience	17 years in the environmental management field. As an EAP she has completed environmental
Training	Resources & Sustainability, Physical & Biological Environment, and Informatics Project Management for Environmental	Professional	impact assessment, basic assessment, drafting of EMPs and environmental compliance monitoring for various development within the Free States., North West, Northern Cape, Eastern Cape Provinces.
	Management Social & Economic Sustainability Use of Matrices in EIA Public Participation Training Social Impact Assessment IWRM Water Use Authorisation and Water Use License Applications Introduction to Environmental law	Affiliation	SACNASP Professional Natural Scientist-400161/09 Member of International Association for Public Participation Southern Africa Affiliate - (2010/ZA/FS0001) Member of International Association for Impact Assessment SA - 2191

The Curriculum Vitae of the EAP is attached hereto as Appendix 1.2.3.

2 PROJECT DESCRIPTION

2.1. BACKGROUND

The Nala Local Municipality ("NLM") needed residential erven in the Monyakeng, Wesselsbron and since they could not provide the residents with serviced stands, they illegally occupied the Khalinkomo area in 2001. The municipality deemed it necessary to provide the informal settlement with communal water standpipes in 2016 so that the residents can have access to clean water, although it is a low-level service. The residents could not be relocated because there are no vacant



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formalized area to accommodate the residents, therefore, NLM decided to formalise the informal settlement as it was located in an area that can be developed into a formal residential area and could be connected to the existing bulk services. The initial property that the informal settlement was established on is approximately 20 hectares and due to the required number of erven especially residential units, the municipality then deemed it necessary that the development footprint be expanded with approximately 80 hectares towards the north to north-western side, thus the total development footprint for Khalinkomo township establishment would be 102.59 hectares. The proposed site is located to the east of Monyakeng at Farm Oranjevlei 174 in Wesselsbron. The portion of land is under the jurisdiction of NLM. The proposed site is earmarked for residential development on the Spatial Development Framework of the municipality ("SDF") Map attached hereto as **Appendix 2.1A**.

The Civil Services Report providing information on the ability of the municipality to accommodate the proposed residential development is contained in Appendix 2.1B, which is compiled by Vexocom (Pty) Ltd. It is indicated that for internal water supply, the new networks will be connected to the existing bulk line and if the pressure is not enough at the connecting point, an alternative new bulk would be opted. The sewage generated from the proposed development will be treated at the recently upgraded wastewater treatment works, however, new gravity sewer links will be required to be combined with the existing line drains. The stormwater within the development will be avoided and the surface drainage from the roads similar to the receiving ground. From the road it will be guided by crossfall or longitudinal slope towards a discharge point, catered for by dropping the kerb as required. Underground stormwater pipe system will only be considered in a worst case if the ground slopes and the urban plan do not allow for ground drainage. The internal roads will have to be upgraded and public transport facilities will be provided. According to the confirmation letter contained in the report, Eskom has adequate electricity capacity to accommodate the development. There are existing gravel roads, which will be upgraded to link the development to the main road networks and Monyakeng connecting roads. The area will be included in the municipal refuse collection system. Most importantly, it is highlighted in the report that no development may connect to the municipal system unless the necessary bulk and link services are in place and the criteria and standard that the bulk services infrastructure must comply with, is contained in the report.

From the traffic assessment was conducted by JG Africa, more than 150 peak hour trips are expected to be generated by the proposed development. A parking ratio of 1 bay per 10 units was used to determine the parking requirements considering the level of income and car ownership and it is equated that 52 off-street bays will be provided. It is also recommended that formal public transport embayments must be provided. Although, a traffic count was not done due to the national lockdown, the development is not expected to have a significant impact on the traffic of the surrounding road network, therefore, a traffic count must be undertaken once traffic patterns are back to normal. The Traffic Statement Report is attached hereto as **Appendix 2.1C**.

To determine if the proposed site is suitable for development into a residential area, numerous investigations were undertaken. To assess the engineering geological character of the area and establish soils stability and suitability, which in turn will indicate the founding conditions for the proposed development and findings are discussed in Section 5.1.3 below.



From the floodline determination was undertaken to determine if the proposed development will not be affected by the 1:100 year floodline and whether the area has a high likelihood of being subjected to flooding. The findings are discussed in Section 5.1.4 below.

To rectify the illegal undertaking whereby indigenous vegetation was cleared on a property of approximately 20.5 hectares, without obtaining an Environmental Authorisation, the municipality has lodged a rectification application to formalize the informal settlement, which will enable them to provide basic services however, this will include continuation process to expand the development footprint with an additional approximately 80 hectares, therefore the total development footprint for Khalinkomo 102.59 hectares.

2.2. ACTIVITY DESCRIPTION

The activity that was commenced without obtaining an Environmental Authorisation was the clearance of an area of approximately 20.5 hectares of indigenous vegetation so that the residents can build their poor housing structures with inadequate sanitation facility, *i.e.* pit latrines and internal roads, which are in poor conditions. The municipality provided the residents with communal water standpipes as a temporary measure to provide clean water to the residents. However, to enable the municipality to provide the area with proper housing and serviced stands, the informal settlement should first be formalized in terms of the planning legislation and thereafter actual construction activities will commence, e.g. grading of internal roads, construction of proper houses with foundations, excavations for laying of sewer and water pipelines, etc. The formalization of the informal settlement will not be able to provide the required housing units, hence for the continuation process, the total development of 102.59 will be subjected to the S24G process to enable issuing of the Environmental Authorisation from DESTEA. The Layout Plan, which indicates that the development will comprise of residential units, business, Institutional and Authority Zones, Special, Open Space and undetermined is attached as **Appendix 2.2**.

2.3. PROJECT LOCATION

NLM is in the Northern part of the Lejweleputswa District Municipality in the Free State Province. It comprises of Bothaville/Kgotsong and Wesselsbron/Monyakeng areas. The proposed site is in Wesselsbron/Monyakeng, which is situated approximately 70km south-west from Bothaville and 160 km North of Bloemfontein. The proposed site including Khalinkomo Informal Settlement in relation to Monyakeng are shown in the Locality Map attached hereto as **Appendix 2.3**.

2.4. SITE DESCRIPTION

Monyakeng is located to the North eastern side of Wesselsbron and is accessible from the Provincial Road R505. The Khalinkomo Informal Settlement is located east of Monyakeng, in the vicinity is an Eskom wooden poles powerline, Provincial Road R719, railway line and livestock enclosures.

The Google Satellite Imagery indicating the proposed site in relation to Monyakeng, Provincial road R717, artificial wetland and the sewer leaks is attached hereto as **Appendix 2.4**. The imagery also shows the recommended protective buffer zone around the nearest water pan.



2.4.1. PHOTOGRAPHIC HISTORY

Photographs indicating the general situation and environment of the site and its surroundings are attached hereto as **Appendix 2.4.1**.

3 LISTED ACTIVITY TRIGGERED

The activity that Nala Local Municipality unlawfully commenced with, prior to obtaining the environmental authorisation from the DESTEA in terms of the EIA Regulations promulgated in terms of the Environmental Conservation Act (Act No 73 of 1989), as amended as the informal settlement was illegally occupied in 2001 is defined as:

Activity 2(c): The change of land use from agricultural or undetermined use to any other land use.

In terms of the Environmental Impact Assessment Regulation ("EIA") of 2014 (as amended 07 April 2017) are listed below:

NEMA GNR 984 (327): Listing Notice 2

- Activity 15: The clearance of an area of 20 hectare or more, of indigenous vegetation except where such clearance of indigenous vegetation is required for;
 - (i) the undertaking of a linear activity;
 - (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

The additional activity as the additional area was subjected to agricultural activities, *i.e.* grazing is as follows:

- Activity 28: Residential, mixed, retail, commercial, industrial, or institutional developments where such land was used for agriculture, game farming, equestrian purposes, or afforestation on or after 01 April 1998 and where such development:
 - (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or
 - (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial, or institutional purposes.

Therefore, an amended application form will be submitted to DESTEA.

4. LEGAL FRAMEWORK

The legislation, policies, and guidelines relevant to the application as contemplated in the EIA regulations has been used for the compilation of this report. These have been used to make sure that all important aspects are being taken into consideration and are covered during the EIA process. Below are the sections that have been quoted from these acts:



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TABLE 1: LEGISLATION RELEVANT TO THE PROPOSED DEVELOPMENT

LEGISLATION	APPLICABLE SECTION
Constitution of the Republic of South Africa Act (Act No. 108 of 1996)	It states that: Everyone has the right – To an environment that is not harmful to their health and well-being; and To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that- i. Prevent pollution and ecological degradation ii. Promote conservation; and iii. Secure ecological sustainable development and use of natural resources while promoting justifiable economic and social development.
National Environmental Management Act (Act 107 of 1998)	It provides for cooperative environmental governance by establishing principles contained in Section 2 of Chapter 1 for decision making on matters affecting the environment, institutions that will promote cooperative governance and procedures for coordinating environmental functions exercised by organs of state and provide for matters connected therewith, and Chapter 5 Section 24 refers: In order to give effect to the general objectives of integrated environmental management laid down in this Chapter, the potential impact on— a. the environment; b. socio-economic conditions; and c. the cultural heritage. of activities that require authorisation or permission by law, and which may significantly affect the environment, must be considered, investigated and assessed prior to their implementation and reported to the organ of state charged by law with authorising, permitting, or otherwise allowing the implementation of an activity.
Environmental Conservation Act (Act 73 of 1989)	It provides for the effective protection and controlled utilization of the environment and on Chapter 5 it prohibits littering and states that no person shall discard, dump or leave any litter on any land or water surface street, road or site in or on any place to which the public has access, except in a container or at a place which has been indicated, provide or set apart for such purpose.



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National Water Act (Act 36 of 1998)	It aims to provide for fundamental reform of the law relating to water resources and on	
	Chapter 3 section 19 states that an owner of land, a person in control of land or a person	
	who occupies or uses the land on which any other situation exists, which causes, has	
	caused or is likely to cause pollution of a water resource, must take all reasonable	
	measures to prevent any such pollution from occurring, continuing or recurring.	
National Environmental Management: Waste Act (Act 59 of 2008)	It reforms the law regulating waste management to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development and section 21 of Chapter 4 states that: Any person who stores waste must at least take steps, unless otherwise provided by the	
	act, to ensure that:	
	 the containers in which any waste is stored, are intact and not corroded or in any other way rendered unfit for the safe storage of waste; 	
	ii. adequate measures are taken to prevent accidental spillage or leaking the waste cannot blown away	
	iii. nuisances such as odour, visual impacts and breeding of vectors do not arise; and	
	iv. pollution of the environment and harm to health are prevented.	
National Environmental Management: Air Quality Act (Act 39 of 2004)		
National Heritage Resource Act (Act 25 of 1999)	It introduce an integrated and interactive system for the management of the national	
	heritage resources; promote good government at all levels, and empower civil society to	
	nurture and conserve their heritage resources so that they may be bequeathed to future	
	generations and Chapter 2 section 35 subsection 3 states that any person who discovers	
	archaeological or paleontological objects or material or a meteorite in the course of	
	development or agricultural activity must immediately report the find to the responsible	

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	heritage resources authority, or to the nearest local authority offices or museum, which
	must immediately notify such heritage resources and subsection 4 says that no person
	may, without a permit issued by the responsible heritage resources authority—
	(a) destroy, damage, excavate, alter, deface, or otherwise disturb any archaeological
	or paleontological site or any meteorite;
	(b) destroy, damage, excavate, remove from its original position, collect or own any
	archaeological or paleontological material or object or any meteorite; and section
	36 subsection 3 states that no person may, without a permit issued by SAHRA or
	a provincial heritage resources authority—
	(a) destroy, damage, alter, exhume, or remove from its original position or otherwise
	disturb the grave of a victim of conflict, or any burial ground or part thereof which
	contains such graves;
	(b) destroy, damage, alter, exhume, remove from its original position, or otherwise
	disturb any grave or burial ground older than 60 years which is situated outside a
	formal cemetery administered by a local authority; or
	(c) bring onto or to use at a burial ground or grave referred to in paragraph (a) or (b)
	any excavation equipment, or any equipment which assists in the detection or
	recovery of metals
Conservation of Agricultural Resources Act (Act 43	It relates to:
of 1983) and CARA Regulations of 1984	1. Control and management of erosion, weeds, and invasive species amongst other
	things.
	2. Prohibits the removal of vegetation in a watercourse in order to prevent erosion.
	 Promotes adoption of soil conservation measures.
	4. Control measures for combating declared weeds and invader plants.
Water Services Act (Act No. 108 of 1997)	Its main objectives it to provide for the right of access to basic water supply and the right
	to basic sanitation necessary to secure sufficient water and an environment not harmful
	to human health or wellbeing.
Nala Local Municipality By-Laws	Some activities would be subjected to the requirements of municipal by-laws and special
	condition, e.g. noise control, waste removal, etc. which should be adhered to.



Other guidelines and documentation although not legally binding have been considered in the compilation of this report:

- Guidelines made available by the Department of Environmental Affairs in terms of the EIA Regulations:
 - Guideline 3: General guide to the EIA Regulations
 - Guideline 4: Public Participation
 - Guideline 5: Assessment of alternatives and impacts
- Department of Environmental Affairs & Development Planning. EIA Guideline and Information Series Guideline on Needs and Desirability

The list of legislation relevant to the authorisation of the activity and status of submission are listed in *Table 2* below.

TABLE 2: RELEVANT LEGAL FRAMEWORK

LEGISLATION	Administering Authority	TYPE PERMIT/ LICENSE/ AUTHORIZATION/COMMENT	DATE (IF ALREADY OBTAINED):
National Environmental Management Act (Act No 107 of 1998) as amended	DESTEA	Environmental Authorisation	In progress
National Heritage Resources Act ('NHRA") (No 25 of 1999)	South African Heritage Resources Agency ("SAHRA") Free State Heritage Resources Agency (FSHRA")	Comment	To be obtained

5. ENVIRONMENTAL DESCRIPTION

5.1. PHYSICAL ENVIRONMENT

5.1.1. CLIMATE

Wesselsbron normally receives about 390mm of rain per year, with most rainfall occurring mainly during mid-summer. The area receives the lowest rainfall (0mm) in July and the highest (71mm) in January. The average midday temperatures range from 18°C in June to 30°C in January and it is the coldest during July when the mercury drops to 0°C on average during the night.

http://www.saexplorer.co.za/south-africa/climate/wesselsbron_climate.asp Source accessed: 2019-06-05

5.1.2. TOPOGRAPHY

Wesselsbron/Monyakeng area is homogenous with moderate slopes. The topography of the proposed site is flat and open. There are no steep slopes, rocky ridges, or outcrops on the development area as far as slope instability is concerned.



5.1.3. GEOLOGY AND SOILS

According to Mucina & Rutherford (2006), deposits of sandstone, mudstone, and shale of the Volkrust formation of the Ecca Group underlie the proposed site, interrupted by dolerite sills in places. Soil forms are mostly dry, clayey, duplex soils. From the Geotechnical Investigation, the soil type on the proposed site is clayey sand, silty sand and silty clayey. There is no readily available construction material, therefore, borrow pit investigations are recommended for construction gravel mainly for roads/layer works. It is indicated that the proposed site is located on Zone A, meaning it is developable although the surrounding area is categorized as Zone B, undevelopable (swampy area, pans, cemetery). The foundation to be selected must take into consideration the soil's potentially collapsible fabric, slightly corrosive nature to metal and the potentially severe expansiveness. The Preliminary Geotechnical report compiled by Thoka Geosciences (Pty) Ltd is attached hereto as **Appendix 5.1.3**.

5.1.4. SURFACE AND GROUNDWATER

As indicated in the Geotechnical Report, the farm is within the Middle Vaal Water Management Area, a C25 Tertiary Drainage Region. The terrain generally drains towards the north into Sandspruit River, which is flowing towards the west into Vaal River. There are pans which are present in the surrounding area of the proposed site, which forms part of the Highveld Salt Pans vegetation type. From the floodline determination report compiled by GilChris Engineering Solutions, it is indicated that there are no visible rivers and tributaries within the proposed site, thus the development is not within the 1:100-year floodline. The nearest is located 120m in a north eastern direction but the defined drainage line feeding into it is within 20m. According to the Ecologist, it appears to be in a relatively healthy and stable ecological condition and supports important aquatic habitat which is subsequently utilised by a wide variety of waterbirds, amphibian species and aquatic invertebrates for breeding, foraging and persistence purposes. From the floodline report, the aguifer of this drainage region generally has limited quantities of groundwater occurring in joint and on bedding plains. A borehole yield analysis indicates that the overall median yield range for this unit falls in the 0.5l.s.1 to 2.0l.s⁻¹ category. The report is attached hereto as Appendix 5.1.4. As indicated in the Ecological Report, there is an artificial wetland nearby, which was formed due to the surface water runoff being channelled from the south through a culvert to the north of the R719, however, it is not viewed as a true natural wetland thus carries no increased conservational significance relative to the surrounding areas.

5.1.5. LAND USE

The site, on which the proposed activity has taken place, is an informal settlement, therefore it has been transformed from an undeveloped and vacant land to a built-up area although currently the structures are sub-standard, proper ones will be built once the formalization is completed and then it will be a residential use, which will be compatible with the neighbouring Monyakeng area. The additional area is undeveloped and vacant although has been subjected to grazing.



6. BIOLOGICAL ENVIRONMENT

6.1. FLORA

The Wesselsbron area falls within the Grassland Biome and is situated in Veld type Gh 9 Western Free State Clay Grassland, which has an endangered Conservation Status (Mucina & Rutherford, 2006). This is largely due to large scale transformation to accommodate formal agriculture and the lack of substantial representation within formal conservation areas. The area is characterized by mainly flat bottomlands which support dry, species poor grassland with a high number of salt pans (playas) embedded.

6.1.1. SITE-SPECIFIC FLORA

In terms of Free State Provincial Spatial Biodiversity Plan, the southern, central and western portion of the informal settlement is categorized as degraded land and the remainder of the proposed site is categorized as an Ecological Support Area 2 and in accordance with the Free State Provincial Spatial Biodiversity Plan, 2017. However, it is not a reminiscent of the natural climatic state of the relevant Western Free State Clay Grassland (Gh 9). However, the surrounding area, *i.e.* areas to the north, east, and south which are undeveloped are in a moderately disturbed and degraded state caused by significant continued long-term grazing. No Red Data Listed, provincially or nationally protected species or any other species of conservational significance were found on the proposed site. The remaining sparse vegetation present on the proposed site mainly consists of exotic and/or legally declared alien invasive species which serve as ornamental, consumption and/or shading purposes. The Ecological Report compiled by EnviroFocus is attached hereto as **Appendix 6.1.1** entailing the findings and mitigation measures that could be adopted to avoid and/or minimise ecological impacts from the proposed development including for the surrounding areas. The Ecologist recommended a walk over study could be done during the flowering period of underground bulbous plants, if deemed necessary by DESTEA as the site assessment was undertaken in winter.

6.2. FAUNA

The proposed site falls within a region dominated by formal agriculture, which has transformed the vast majority of the natural vegetation. Overall ecological degradation is therefore a general feature, which has limited the potential faunal diversity that occurs within the region. Although the area has been transformed by the establishment of the informal settlement, small mammals, bird life and insects are expected to be present in the vicinity. The possibility of small rodents is very high in the area due to illegal activities, e.g. illegal dumping.

6.2.1. SITE-SPECIFIC FAUNA

During the site inspection no faunal activity as there is no ecologically sensitive terrestrial habitat remains within the proposed site. The area does not fall within an Important Bird Area (IBA). No conservationally significant or important bird species or locally distinct habitats were observed during the site assessment or are necessarily expected to utilise the area for breeding, foraging and/or persistence purposes. Only common local resident bird species were found to be present. Refer to **Appendix 6.1.1** for the site-specific fauna description.



6.3. AREAS OF HISTORICAL AND/OR CULTURAL IMPORTANCE

From the Heritage Assessment that was undertaken, the area has been disturbed by previous agricultural activities and establishment of the informal settlement. There are no known Stone Age sites including rock art in the proposed site, this includes single or scattered concentrations of stone tools. No Iron Age sites, features or cultural material was identified. The Heritage Assessment Report compiled by AP Archaeological Consulting is attached hereto as **Appendix 6.3**.

6.4. SOCIAL ECONOMIC STRUCTURE OF THE AREA

The geographic area of NLM is 4.135 square kilometres, making it the smallest in the Lejweleputswa district but it has the second largest population.

6.4.1. SOCIAL CONTEXT

According to the Integrated Development Programme ("IDP") (2017-2018) the population of NLM is 78 515 with 23 653 households per census 2016, respectively and 4 805 households in informal dwelling, of which 1 946 have been earmarked for upgrading through the partnership between the municipality, Department of Human Settlement and Human Development Agency's National Programme to upgrade informal settlement.

The municipality has a negative population growth due to migration of people seeking for greener pastures in the neighbouring areas and cities, HIV/Aids can also be another factor for the decrease. NLM also has the highest dependency ratio of 66.1% in the district, which is higher in females and this could be because of the high unemployment rates among the economically active population and a growing ageing population that depends on government grants for subsistence. The need for sustainable economic development in the area cannot be emphasised more as unemployment rates must be reduced.

6.4.2. ECONOMIC CONTEXT

NLM is the largest 3rd contributor in the district, which comes from agriculture, hence, the municipality is referred to as "Maize-triangle of South Africa". Other sectors include Mining, Manufacturing, Construction, Retail Trade, Transport & Communication, Business Services, Social & Personal Services, Electricity, and other economic activities of importance are Community and Social services, Manufacturing, Wholesale and Retail. The ability of the Municipality to create additional employment opportunities in the municipal area is also limited especially for the youth. As a way of reducing the unemployment rate, other job creation initiatives that NLM provides includes local procurement, Expanded Public Works Programme and Community Worker Programme.

6.4.3. DEVELOPMENT OBJECTIVE

It is imperative that the NLM aligns developments within their municipal area with other development plans, strategies and objectives of the province and national, e.g. Free State Provincial Growth and Development Strategy, this is very important when reviewing their Integrated Development Programme ("IDP") priorities. One of the development objectives and targets in the Free State is to reduce the number of people living in poverty and provide shelter for all the people in the province, therefore NLM's infrastructure development plans must respond to that. In addition to that they have a constitutional mandate, and one relevant for this development is:



- 1. To ensure provision of services to communities in a sustainable manner.
- 2. To promote a safe and healthy living environment.

Therefore, as NLM is also facing uncontrolled illegal occupation of land like most municipalities in the province, they need to find alternative land to develop or upgrade their informal settlement, so that they are able to provide essential basic services that currently the community of Khalinkomo doesn't have access to, e.g. their road conditions are in a bad state and therefore emergency health services are unable to reach people in need of those services. The municipality, then opted to formalize the informal settlement. The formalization is aligned with the Free State Provincial Growth and Development Strategy-Free State Vision 2030 of having Sustainable Rural Development, which is vital to the environmental, social and economic viability of the municipal area, therefore on completion of this project, the life and well-being of Khalinkomo community will be improved, meaning the FSGDS's Priority Area and COGTA's Back to Basics "Improved Quality Life" will also met. This development is in line with The Government 12 Outcomes set from the development focus of the Medium-Term Strategic Framework (2009-2014), which is Outcome 8- "Sustainable human settlements and improved quality of household life".

The applicable development objectives contained in the IDP are shown in Table 3 below:

DEVELOPMENT OBJECTIVE	FOCUS INITIATIVE
Improved service delivery	Provision of basic services to the community
	remains the core function of this municipality.
	These services include among others; water and
	sanitation, refuse removal, electricity and
	streetlights, maintenance of roads and storm-water
	canals and pavements.
Integrated Human Settlements	The municipality has succeeded in ensuring
	access to housing; however, the backlog remains
	a challenge.
	Lack development of serviced ervens has caused
	and increase in informal settlements. The
	municipality should prioritise review of its spatial
	development framework and design of appropriate
	land use management systems.

TABLE 3: APPLICABLE DEVELOPMENT OBJECTIVES

It is evident that if the proposed development is formalized, the municipality will be able to achieve the abovementioned objectives and work towards increasing the number of households with access to basic services.



The improvement opportunities and IDP Priorities that are applicable for the proposed project as shown in *Table 4* below.

IDP PRIORITIES		
Municipal Roads and Stormwater	To ensure that all municipal roads in Nala	
	Local municipality are upgraded/or maintained	
	to facilitate economic and social activity	
	required for the sustainable development of	
	the municipality.	
Urban Planning and Human Settlement	To ensure effective urban planning that will	
	promote spatial planning and social cohesion.	
Electricity Reticulation	To ensure that all households and business in	
	the municipal area of supply have access to	
	uninterrupted electricity.	

TABLE 4: IDP PRIORITIES

The municipality is expected to respond to the development imperatives identified in the National Development Plan, 2030 when reviewing their IDP Priorities, therefore with this development, their performance target of prioritizing infrastructure investment in upgrading informal settlement will be met.

7. PUBLIC PARTICIPATION PROCESS

7.1. BACKGROUND

The Public Participation Process was completed as per Department of Environmental Affairs and Tourism's Guideline 4: Public Participation in support of the EIA Regulations. The objective of the process is to provide the local community and potential interested and affected parties with adequate information and give them an opportunity to raise their issues and concerns. Methods used to inform the various I&APs of the project included, direct contact, on-site notice, posters placed at prominent places, and advertising in the local newspaper, Vista Newspaper. The Draft EIR will be sent to identified I&APs for review. Phase 1 of the process, *i.e.* notifications, on-site advert, posters and newspaper advert was to give identified I&APs and any individual an opportunity to register as I&APs and to raise issues and/or comments on the application. Phase 2 will be whereby the draft EIR is sent to identified and registered I&APs for 30 days review (included in the 40 days notification period) whereby the key findings of the S24G application process will be provided and to provide another opportunity to comment on the report or input that could be considered for decision-making.

7.2. LANDOWNERS NOTIFICATION

The proposed site is within the jurisdiction of NLM, the applicant.

7.3. NOTIFICATION TO THE COUNCILLOR

Councillor of Ward 3, Councillor Mabeleng was notified of the application process, whereby a notice shown in *Figure 1* below was hand-delivered on the 13th of June 2019, and proof of delivery is shown in *Figure 2*.



S24G KHALINKOMO TOWNSHIP ESTABLISHMENT, WESSELSBRON DRAFT EIR

Notification sent to the Councillor of Ward 3, Councillor Mabeleng

	nail:info@nsvt.co.za bsite: www.nsvt.co.za	P.O Box 42452 Heuwelsig 9332	ENVIRONMENTAL & SOCIAL SCIENTISTS Ref. No.: NSVT-S24G-K-0329
			Date: 2019-06-13
Nala Local Municipali Ward 3 Wesselsbron 9680	ty		
Attention: Councillor	Mabeleng		
Dear Sir			
24G OF THE NAT	Ional Environmen Alinkomo info	ITAL MANAGEME	ULATIONS IN TERMS OF SECTION ENT AMENDMENT ACT (ACT NO. 8 LEMENT IN KHALINKOMO,
Environmental Manag	ement Amendment Ad	ct (as amended) t	vith Sections 24(F) of the National that the Free State Department of ourism and Environmental Affairs is
	rectification by Nala Lo vironmental Manageme		erms of Sections 24(G) and 24(F) t (as amended) -; and
NEMA for the un Impact Assessme	lawful commencement	of activities listed Notice 2 of 2014 (cipality in terms of Section 24G of d in terms of the Environmental (as amended) published under of
 Name of Proje 	ect: S24G Khalinkomo	Township Establish	nment, Wesselsbron
 Project descri 	ption as listed in the El	A regulations of 20	14 (as amended):
vegetation, exc the undertaking	luding where such a cle	earance of indigeno ii) maintenance pu	20 hectares or more of indigenous ous vegetation is required for – (i) irpose undertaken in accordance
Location: Eas	t of Monyakeng, Wesse	elsbron in Ward 3	
Co-ordinates:			
	Latitude (S): 27° 49' 37		ngitude (E): 3' 06.56"



	Date of Commencement of the Listed Activity: 2001
	DESTEA Application Reference Number: 24G/15/179/02
	es regarding this matter must be referred to: NSVT Consultants Lorato Tigedi <i>Pr. Sci. Nat.</i> 051 430 1041/2 (t) 0862399133 (f), <u>lorato@nsvt.co.za</u> (e), P.O. Box 42452, Heuwelsig 9332 (p)
rectifi comn	ested and Affected Parties wishing to formally object to and / or comment on the propose cation and environmental authorisation are requested to forward their objections and nents (<i>with reasons</i>) to NSVT Consultants, contact details are indicated above no later that (40) working days after the publication of this notification.
The d	Iraft Environmental Impact Report will be sent through for review.
Obje	tions and comments must be copied to:
Tel. N	TEA Seekoei Io.:051-400 4817 I: Seekoeis@destea.gov.za
Норе	you find the above in order.
Rega	rds,
	o Tigedi Pr. Sci. Nat. onmental Assessment Practitioner

FIGURE 1:NOTIFICATION SENT TO THE COUNCILLOR OF WARD 3



S24G KHALINKOMO TOWNSHIP ESTABLISHMENT, WESSELSBRON DRAFT EIR

Reference Number	051 430 1042 NSVT-S24G-K-0329
RE	S24G Khalinkomo Township Establishment, Wesselsbron
Type of Postage	Hand Delivery
Attachments	Notification of Public Participation Process for the S24G- Rectification of Unlawful Continuation of an activity identified in terms of Environmental Impact Assessment Regulations 2014 (as amended)
Го	Councillor Mabeleng Ward 3
Contact Person	Councillor Mabeleng
Date Posted	13/06/2019
Means of Postage	
Signature (Recipient)	Mabelen
Name (Recipient)	MBIZD MABELENG
Date Received	13/06/2019
	NSULTANTS

The proof of delivery of notification to the ward councillor.



7.4. DIRECT CONTACT

Notifications of the S24G rectification application lodged on behalf of NLM were sent to the Department of Water and Sanitation and the Free State Heritage Agency ("FSHRA") on the 13th of June 2019 shown in *Figure 3* and *4* below

Notification to DWS.	
RE: Notice of Public Participation Process-S24G Vergenoeg and Khalinkomo Informal Settlements in Monyakeng, Wesselsbron	
L lorato@nsvLco.za To 'nelg@dws.gov.za' phinithit@dws.gov.za' ① You forwarded this message on 6112/0219 1007 AM. This message was set with this minorfance.	← Reply 《 Reply All → Forward … Thu 6/13/2019 10:03 AM
Image: Suppose of the start with Figure importance. Image: Suppose of the start with Figu	
Good Morning, Sirs	
Please find the attached \$24G Notification for the abovementioned informal settlements in Wesselsbron, Nala Local Municipality.	
I trust you will find everything in order.	
Regards, Lorato	
CONSULTANTS EXERCISE LEVENER LOCATO TIGODI P: Scl. Not Director 10:000 P: Scl. Not Director 2:000 P: Scl. Not	-
Tel: 051 430 1041/2 Fax:(086) 239 9133 Email:info@nsvt.co.za website: www.nsvt.co.za website: www.nsvt.co.za	
ENVIRONMENTAL & SOCIAL SCIENTISTS	
Ref. No.: NSVT-S24G-K-0329 Date: 2019-06-13	
Department of Water and Sanitation	
P.O. Box 528 Bloemfontein	
9301	
Attention: Mr. Nel and Mr. Phinithi	
Dear Sirs	
RE: UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004)-KHALINKOMO INFORMAL SETTLEMENT IN MONYAKENG/WESSELSBRON	
Notice is given, in terms of Section 24(G) read together with Sections 24(F) of the National Environmental Management Amendment Act (as amended) that the Free State Department of Economic and Small Business Development, Environment, Tourism and Environmental Affairs is considering:	
 An application for rectification by Nala Local Municipality in terms of Sections 24(G) and 24(F) of the National Environmental Management Amendment Act (as amended) -; and 	
b. Granting an environmental authorisation to Nala Local Municipality in terms of Section 24G of NEMA for the unlawful commencement of activities listed in terms of the Environmental Impact Assessment Regulations Listing Notice 2 of 2014 (as amended) published under of Government Notice R984 (R325) of 07 April 2014 for:	
 Name of Project: S24G Khalinkomo Township Establishment, Wesselsbron 	
 Project description as listed in the EIA regulations of 2014 (as amended): 	
Listing Notice 2 Activity 15: The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such a clearance of indigenous vegetation is required for – (i) the undertaking of linear activity; or (ii) maintenance purpose undertaken in accordance with a maintenance management plan.	
 Location: East of Monyakeng, Wesselsbron in Ward 3 	
Co-ordinates:	
Latitude (S): Longitude (E): 27° 49' 37.16" 26° 23' 06.56"	



٥	Date of Commencement of the Listed Activity: 2001
٥	DESTEA Application Reference Number: 24G/15/179/02
	regarding this matter must be referred to: NSVT Consultants Lorato Tigedi <i>Pr. Sci. Nat.</i> 051 430 1041/2 (t) 0862399133 (f), <u>lorato@nsvt.co.za</u> (e), P.O. Box 42452, Heuwelsig, 0332 (p)
rectificat commer	ed and Affected Parties wishing to formally object to and / or comment on the proposed tion and environmental authorisation are requested to forward their objections and nts (<i>with reasons</i>) to NSVT Consultants, contact details are indicated above no later than i) working days after the publication of this notification.
The draf	ft Environmental Impact Report will be sent through for review.
Objectio	ons and comments must be copied to:
Норе уо	ou find the above in order.
Regards	3,
	Tigedi <i>Pr. Sci. Nat.</i> mental Assessment Practitioner

FIGURE 3: NOTIFICATION SENT TO THE DEPARTMENT OF WATER AND SANITATION



S24G KHALINKOMO TOWNSHIP ESTABLISHMENT, WESSELSBRON DRAFT EIR

Notification to Free State Heritage Resources Authority

RE: Notice of Public Participation Process-S24G Vergenoeg and Khalinkomo Informal Settlements in Monyakeng, Wesselsbron			
lorato@nsvt.co.za To 'Loudine Philip'	S Reply	≪ Reply All	→ Forward •••• Thu 6/13/2019 9:56 AM
() This message was sent with High importance.			THU 0/15/2019 5.30 AM
Vergenceg Notification to FSHRA.pdf VIII IN Khalinkomo Notification to FSHRA.pdf VIII IN KB			
Good Morning, Loudine			
Please find the attached S24G Notification for the abovementioned informal settlements in Wesselsbron, Nala Local Municipality.			
We will also send the project through SAHRIS for commenting.			
I trust you will find everything in order.			
Regards, Lorato			
CONSULTANTS ROMEMENTA & SOCIE LEARNING ROMEMENTA & SOCIE LEARNING ROMEMENTA			
4			
Tel: 051 430 1041/2 Fax:(086) 239 9133 Email: info@nsvt.co.za website: www.nsvt.co.za 9332 P.O Box 42452 Heuwelsig 9332 environmental & social			
Ref. No.: NSVT-S24G-K- Date: 2019-06			
Free State Heritage Resources Authority Private Bag X20606 Bloemfontein 9301			
Attention: Ms. Loudine Philip			
Dear Madam			
RE: UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TE OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SEC 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT I OF 2004)-KHALINKOMO INFORMAL SETTLEMENT IN MONYAKENG/WESSELSBRON	TION		
Notice is given, in terms of Section 24(G) read together with Sections 24(F) of the Nat Environmental Management Amendment Act (as amended) that the Free State Departme Economic and Small Business Development, Environment, Tourism and Environmental Affair considering:	nt of		
a. An application for rectification by Nala Local Municipality in terms of Sections 24(G) and 24(F of the National Environmental Management Amendment Act (as amended) -; and)		
b. Granting an environmental authorisation to Nala Local Municipality in terms of Section 24G of NEMA for the unlawful commencement of activities listed in terms of the Environmental Impact Assessment Regulations Listing Notice 2 of 2014 (as amended) published under of Government Notice R984 (R325) of 07 April 2014 for:	al		
 Name of Project: S24G Khalinkomo Township Establishment, Wesselsbron 			
 Project description as listed in the EIA regulations of 2014 (as amended): 			
Listing Notice 2 Activity 15: The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such a clearance of indigenous vegetation is required for – (the undertaking of linear activity; or (ii) maintenance purpose undertaken in accordance with a maintenance management plan.	1)		
 Location: East of Monyakeng, Wesselsbron in Ward 3 			
Co-ordinates:			
Latitude (S): Longitude (E):			
27° 49' 37.16" 26° 23' 06.56"			



 Date 	of Commencement of the Listed Activity: 2001
DEST	TEA Application Reference Number: 24G/15/179/02
NSVT Lorato	ding this matter must be referred to: Consultants Tigedi <i>Pr. Sci. Nat.</i> 0 1041/2 (t) 0862399133 (f), <u>lorato@nsvt.co.za</u> (e), P.O. Box 42452, Heuwelsig, p)
rectification a comments (wit	Affected Parties wishing to formally object to and / or comment on the proposed nd environmental authorisation are requested to forward their objections and th reasons) to NSVT Consultants, contact details are indicated above no later than ing days after the publication of this notification.
The draft Envir	ronmental Impact Report will be sent through for review.
Objections and	d comments must be copied to:
	00 4817 is@destea.gov.za the above in order.
Regards,	
Lorato Tigedi / Environmental	Pr. Sci. Nat. Assessment Practitioner

FIGURE 4: NOTIFICATION SENT TO FREE STATE HERITAGE RESOURCES AUTHORITY



7.5. NOTIFICATION TO STATE-OWNED ENTITY

Notification was sent to Eskom as there is a wooden-poles overhead powerline within the vicinity of the Khalinkomo Informal Settlement as shown in *Figure 5* below.

Re: Notice of Public Participation Process-S24G Khalinkomo Informal Settlements in Monyakeng, Wesselsbron	
lorato@nsvt.co.za To 'gasongd@ekom.co.za'	ard ••• 2019 10:08 AM
This message was sent with High importance. Khalinkomo Notification to Eskon.pdf	
Analinkomo votification to essom, par v 189 KB	
Good Morning, Sir	
Please find the attached \$24G Notification for the abovementioned Khalinkomo informal settlements in Monyakeng, Wesselsbron within the jurisdiction of Nala Local Municipality. There is a wooden overhead powerline in the vicinity of the area.	
Regards, Control Contr	
CONSULTANTS	
Tel: 051 430 1041/2 Fax:(086) 239 9133 Email: info@nsvt.co.za website: www.nsvt.co.za 9332 P.O Box 42452 Heuwelsig 9332	
ENVIRONMENTAL & SOCIAL SCIENTISTS	
Ref. No.: NSVT-S24G-K-0329	
Date: 2019-06-13	
Hoopstad Customer Network Centre Hoopstad	
9479	
Attention: Mr. George Garson	
Dear Sir	
RE: UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS	
OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8	
OF 2004)-KHALINKOMO INFORMAL SETTLEMENT IN MONYAKENG/WESSELSBRON	
Notice is given, in terms of Section 24(G) read together with Sections 24(F) of the National Environmental Management Amendment Act (as amended) that the Free State Department of Economic and Small Business Development, Environment, Tourism and Environmental Affairs is considering:	
 An application for rectification by Nala Local Municipality in terms of Sections 24(G) and 24(F) of the National Environmental Management Amendment Act (as amended) -; and 	
b. Granting an environmental authorisation to Nala Local Municipality in terms of Section 24G of NEMA for the unlawful commencement of activities listed in terms of the Environmental Impact Assessment Regulations Listing Notice 2 of 2014 (as amended) published under of Government Notice R984 (R325) of 07 April 2014 for:	
 Name of Project: S24G Khalinkomo Township Establishment, Wesselsbron 	
 Project description as listed in the EIA regulations of 2014 (as amended): 	
Listing Notice 2 Activity 15: The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such a clearance of indigenous vegetation is required for – (i) the undertaking of linear activity; or (ii) maintenance purpose undertaken in accordance with a maintenance management plan.	
 Location: East of Monyakeng, Wesselsbron in Ward 3 	
Co-ordinates:	
Latitude (\$): Longitude (E): 27° 49' 37.16" 26° 23' 06.56"	
 Date of Commencement of the Listed Activity: 2001 	



 DESTEA Application Reference Number: 24G/15/179/02
Queries regarding this matter must be referred to: NSVT Consultants Lorato Tigedi <i>Pr. Sci. Nat.</i>
 D51 430 1041/2 (t) 0862399133 (f) , <u>lorato@nsvt.co.za</u> (e), P.O. Box 42452, Heuwelsig, 9332 (p)
Interested and Affected Parties wishing to formally object to and / or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (<i>with reasons</i>) to NSVT Consultants, contact details are indicated above no later than forty (40) working days after the publication of this notification.
The draft Environmental Impact Report will be sent through for review.
Objections and comments must be copied to:
DESTEA
Sello Seekoei Tel. No.:051-400 4817
Email: Seekoeis@destea.gov.za
Hope you find the above in order.
Regards,
Lorato Tigedi Pr. Sci. Nat. Environmental Assessment Practitioner
Environmental Assessment Plactuoner

FIGURE 5: NOTIFICATION SENT TO STATE-OWNED ENTITY-ESKOM



7.6. PRESS ADVERTISING

The project was advertised on the 13th of June 2019 in Vista Newspaper. A copy of the advert is attached hereto as *Figure 6* below.

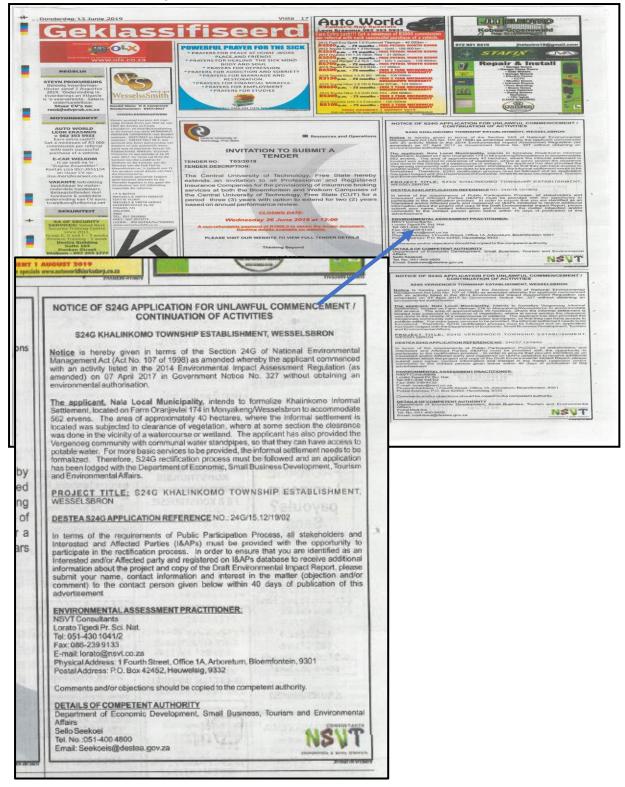


FIGURE 6: ADVERTISEMENT PLACED IN VISTA NEWSPAPER



7.7. ON-SITE NOTICE

On-site notice was placed at the proposed site, see Photo 1 below.

On-site notice placed near a communal water standpipe in Vergenoeg at co-ordinate point: S27^o 48' 53.9" and S26^o 22' 16.5"



PHOTO 1: ON-SITE NOTICE PLACED NEAR THE COMMUNAL WATER STANDPIPE



7.8. POSTERS

Posters were placed at prominent places in Monyakeng and Wesselsbron to notify I&APs with the proposed development. Photographs showing posters are shown in *Photo 2, 3* and *4* below.

Poster placed at the Municipal Offices in Wesselsbron.



PHOTO 2: POSTER PLACED AT THE MUNICIPAL OFFICES IN WESSELSBRON





Poster placed at the Library in Wesselsbron.

PHOTO 3: POSTER PLACED AT THE WESSELSBRON LIBRARY



Poster placed on the fence of Monyakeng Library



PHOTO 4: POSTER PLACED AT THE MONYAKENG LIBRARY



Poster placed at the Police Station in Monyakeng.



PHOTO 5: POSTER PLLACED AT MONYAKENG POLICE STATION



7.9. NOTIFICATION TO REGISTERED INTERESTED AND AFFECTED PARTY

From the placing of the advert in the local newspaper and posters at the prominent places within the municipality, only one individual registered as an I&AP, see record of communication in *Figure 7* below.

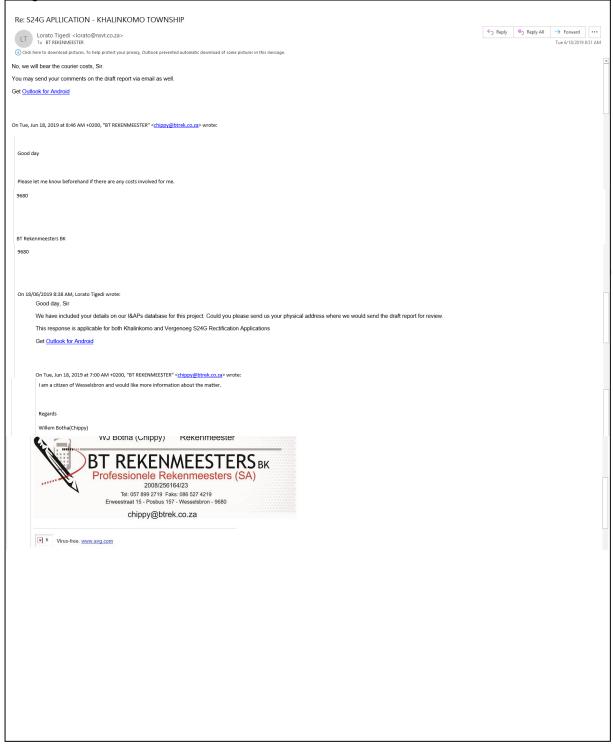


FIGURE 7: I&AP REGISTERED DURING THE NOTIFICATION PHASE



7.10. REVIEW OF THE DRAFT EIR

As part of the public participation process, the report will be sent to registered and identified Interested and Affected parties and the comments received will be included in the Final report.

8. NEED FOR THE PROPOSED ACTIVITY

The community of Khalinkomo has illegally occupied an unplanned area in Ward 3, meaning for approximately 18 years, they have been living under poor conditions, whereby there is no access to proper shelter, adequate sanitation, power supply, waste management and secure water supply. In cases of theft or emergencies, it is difficult to access the area as they do not have street names and road conditions are extremely poor, rendering them inaccessible. This has in turn caused negative impact to the environment for example groundwater contamination due to improper sanitation facilities and poor conditions top structures, which are not stable, especially during harsh weather conditions, therefore threatening safety of the residents.

According to the Free State: Informal Settlement Status Report of 2013, the National Department of Human Settlement indicated that the Free State has 208 informal settlement polygons, whereas Land and Property Spatial Information System showed 236. Lejweleputswa District Municipality in the 2007 Community Survey had the highest number of households living in informal settlement, *i.e.* shacks, which are not in backyards therefore NLM is also affected as it is under this district municipality. It's indicated in the IDP 2017/22 that the municipality has about 19466 households in informal settlements earmarked for upgrading through partnership between the municipality, Department of Human Settlement and Human Development Agency's National Programme to upgrade informal settlements and already it has a housing backlog of 5729 units.

This shows that there is a need to address housing backlog and formalize informal settlements, which can be provided with basic services, especially clean and reliable water supply, and adequate sanitation. Since the informal settlement has grown through the years the demand for housing in Monyakeng/Wesselsbron has increased, to curb occupation of unplanned area the municipality deemed it necessary to formalize/upgrade it or else more people will flock to the area thus increasing the number of households in informal settlements. During layout planning for the proposed formalization, floodlines, geotechnical considerations, future road planning, environmental concerns and property boundaries were considered. The additional area was added so that the municipality could include more housing units to meet the current housing backlog in the Wesselsbron/Monyakeng area.

9. ALTERNATIVES CONSIDERED

Alternatives should be considered for the proposed residential development, whereby an alternative that will have a minimal impact on the environment, or that would enhance project benefit, would be the preferred one. For the said development, the alternatives that could be considered is either a layout or a site, and the latter was not considered because the municipality does not have serviced stands that they can relocate the community to. In terms of technology, the development will be connected to the existing municipal network, thus there will be no need to assess new technologies for the development. However, the municipality should consider use of roof solar panels for source of energy instead of connecting to the



S24G KHALINKOMO TOWNSHIP ESTABLISHMENT, WESSELSBRON DRAFT EIR

municipal electrical connection grid as the residents could have a difficulty paying for electricity with such a high unemployment and dependency rate, this could plunge the residents deeper into poverty. With inclusion of the additional area to the development footprint and taking into consideration its location in relation to the nearest pan, it is recommended that the layout be amended to include a 250m buffer zone between the proposed site and the pan and this would result in the loss of housing erven, thus the competent authority should indicate if this should be adopted. Therefore, there will be no other alternatives considered for the said development.

9.1. NO-GO ALTERNATIVE (DO NOTHING ALTERNATIVE)

Should the development not take place, the community of Khalinkomo Informal Settlement would continue to live in poor conditions, which are detrimental to their wellbeing, health, safety and environment as they live in informal housing structure, inadequate sanitation facilities and low level of water supply. In addition to that, then the municipality would not be able to address their housing backlog and formalize informal settlements in the area, and this could attract more people to illegally occupy vacant and undeveloped areas. The development objectives and IDP priorities as outlined will not be met and the municipality wouldn't be able to provide essential basic services, *i.e.* water, sanitation, refuse removal, electricity and streetlights, stormwater control to the Khalinkomo community and this could in the long run result in service protests and social unrests as the people have been waiting for too long to be provided with serviced stands. With the situation of Khalinkomo community living in poor living conditions without access to basic services, the no-go alternative is considered not feasible as the constitutional mandate of providing a safe and healthy environment to their community will not be realised. If the additional area is not included in this application, it would result in economical, implications for the municipality, whereby a new EIA will have to be followed and they will not be able to provide the housing needed within the Monyakeng/Wesselsbron area. Should the additional area not be included, then the development will not be able to provide number of housing units required by the municipality. Therefore, housing backlog would remain a challenge.

10. ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

Environmental impacts identified for this project are listed in *Table 5* below.

ENVIRONMENTAL ASPECTS	POSSIBLE IMPACTS	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION (LOW, MEDIUM, MEDIUM- HIGH, HIGH, VERY HIGH):
	Impacts during pre-construction pha	ase
Socio-Economic	Employment opportunities for the local community during construction phase due to the current unemployment rate (economic impact)	High (positive impact)
Availability of Bulk Services	Insufficient bulk services capacity to accommodate the proposed development	Low

TABLE 5: IDENTIFIED ENVIRONMENTAL IMPACTS



S24G KHALINKOMO TOWNSHIP ESTABLISHMENT, WESSELSBRON DRAFT EIR

Impacts during construction phase					
	Transformation of terrestrial vegetation on the additional assessment area with Western Free State Clay Grassland vegetation type (Gh 9) (additional portion)	Low			
Flora	Transformation of an Ecological Support area two (ESA 2) associated with the assessment area (additional portion)	Low			
	Destruction of/damage to Red Data Listed, nationally or provincially protected species individuals/habits	Low			
Alien Invasive Species	Establishment of alien invasive species	Low			
Stormwater	Impeding and contamination of the water drainage's flow regime and subsequent decrease in ecological integrity and functionality of the pan	Low			
Management	Alteration of the topography due to earthmoving activities could result in increased surface water run-off and flooding.	Medium			
Wetland Destruction	No wetlands were located within the p caused by sewer leaks seemed like wet wetland is located within 100m of the pro- caused by the surface runoff being channel a culvert from the north of the Provincial as a true natural wetland as it does no significance relative to the surrounding are	lands. The nearest artificial oposed site, which has ben elled from the south through Road R719 thus not viewed ot carry any conservational			
Soil Erosion	Loss of topsoil during the construction period from movement of construction vehicles and operation from earthmoving activities, which could result in soil erosion.	Low			
Air Quality	Dust generation during the construction phase and its impact on the health of the surrounding land users and the workforce.	Low			
Noise Generation	Excessive generation of noise that could be nuisance to the surrounding landusers and owners.	Low			
Waste Management	Incorrect and improper storage and disposal of solid waste during construction that could result in contamination of the environment and reduce visual aesthetics of the area.	Low			
Cultural, Historical and Archaeological and	Potential damage or destruction of undiscovered heritage sites during construction.	Low			



Palaeontological		
aspects		
Health	Risk of the increase of Human Immuno- Virus/Acquired Immuno-Deficiency Syndrome (HIV/AIDS) and other Sexually Transmitted Diseases due to the increase in income and introduction of people (employed in the project) which may cause unsafe behaviours and casual sexual relationship.	Low

11. SIGNIFICANCE ASSESSMENT METHODOLOGY

The methodology adopted for the assessment of identified impacts is the Impact Rating Matrix, which is explained below.

NATURE: The character of the impact				
EXTENT	DURATION	PROBABILITY	MAGNITUDE	
Area	Time Frame	Likelihood	Intensity of impact to	
			destroy or alter the	
			environment.	
IRREPLACEABLE	This describes	the degree to which reso	ources will be irreplaceably	
LOSS OF	lost as a result	of a proposed activity.		
RESOURCES				
REVERSIBILITY	This describes the degree to which an impact can be successfully			
	reversed upon completion of the proposed activity			
SIGNIFICANCE:				
Implication of the impact	both with or wit	hout mitigation		
TYPE:				
Description as to whether the impact is negative or positive or neutral.				
MITIGATION:				
Possible impact management, minimization, and mitigation of the identified impacts.				

11.1. NATURE OF IMPACT

Nature of impact describes the character of the impact in terms of the effect on the relevant environmental aspect.

11.2. SPATIAL EXTENT OF IMPACT

Measures the area extent, physical and spatial scale over which the impact will occur. This implies the scale limited to the Project Site (footprint) - including adjacent areas; or the town and neighbouring areas (localized), or the Local Municipality area (regional) or the entire Province (Provincial), or the entire country (National) or beyond the borders of South Africa.

Criteria	Footprint/ Surroundings (F)	Site/Local (S-L)	Regional (R)	Provincial (P)	National and Beyond (International) (N)
Rating	1	2	3	4	5



11.3. DURATION OF IMPACT

Duration measures the timeframe of the impact in relation to the lifetime of the project. It gives an assessment of whether the impact can be eliminated by mitigation immediately (0-1 year) after a short time (1-5 years), medium term (5-10 years), long term (11- 30 years of the Project activities), or permanent (persists beyond life) due to the Project activities.

Criteria	Temporary	Short Term	Medium Term	Long Term	Permanent
	(T)	(ST)	(MT)	(LT)	(P)
Rating	1	2	3	4	5

11.4. MAGNITUDE/INTENSITY OF IMPACT

Magnitude or intensity of the impact measures whether the impact is destructive or benign, whether it destroys, alters the functioning of the environment, or alters the environment itself. It is rated as insignificant, low, medium, high, or very high.

Criteria	Insignificant	Low	Medium	High	Very High
	(I)	(L)	(M)	(H)	(VH)
Rating	2	4	6	8	10

11.5. IRREPLACEABILITY OF NATURAL RESOURCES BEING IMPACTED UPON

This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.

Criteria	Very Low	Low	Moderate	High	Definite
	(VL)	(L)	(M)	(H)	(D)
Rating	1	2	3	4	5

11.6. REVERSIBILITY OF IMPACT

This describes the degree to which an impact can be successfully reversed upon completion of the proposed activity.

Criteria	Reversible	High	Moderate	Low	Irreversible
	(R)	Reversibility	Reversibility	Reversibility	(IR)
		(HR)	(MR)	(LR)	
Rating	1	2	3	4	5

11.7. PROBABILITY OF IMPACT

Probability measures the probability or likelihood of the impact occurring, as either probable, possible, likely, highly likely, or definite (impact will occur regardless of preventative measures).

Criteria	Probable	Possible	Likely	Highly Likely	Definite
	(PR)	(PO)	(L)	(HL)	(D)
	(0-10%)	(10-25%)	(25-50%)	(50-75%)	(75-100%)
Rating	1	2	3	4	5



11.8. SIGNIFICANCE OF IMPACT

Significance measures the foreseeable significance of the impacts of the Project both with and without mitigation measures. The significance on the aspects of the environment is classified as:

Significance	(Extent + Duration + Magnitude + Irreplaceability +
Score (SS) =	Reversibility) x Probability

The Significance Score is then used to rate the Environmental Significance of each potential environmental impact with or without mitigation.

Significance	Significance	Description/
Score	Rating	Criteria
125-150	Very High	the impact will result in large, permanent and severe
		impacts, such as local species extinction, minor human
		migrations or local economic collapses; even projects
		with major benefits may not go ahead with this level of
		impact; project alternatives which are substantially
		different should be looked at, otherwise the project
		should not be approved.
100-124	High	the impact will affect the environment to such an extent
		that permanent damage is likely, and recovery will be
		slow and difficult; the impact is unacceptable without
		significant mitigation efforts or reversal plans; project
		benefits must be proven to be very substantial; the
		approval of the project will be in jeopardy if this impact
		cannot be addressed.
75-99	Medium-High	the impact is significant and will affect the integrity of the
		environment; effort must be made to mitigate and
		reverse this impact; in addition, the project benefits must
		be clearly shown as outweighing the negative impact.
50-74	Medium	the impact will be noticeable but should be localised or
		occur over a limited time period and not cause
		permanent or unacceptable changes; it should be
		addressed in the EMPr and managed appropriately.
<50	Low	the impact should cause no real damage to the
		environment, except where it could contribute to
		cumulative impacts.
+	Positive Impact	A positive impact is likely to result in a beneficial
		consequences/effect and should therefore be viewed as
		a motivation for the development



12. ASSESSMENT OF IDENTIFIED ENVIRONMENTAL ISSUES

The environmental issues identified in Section 10 above are assessed in *Table 7* below in terms of the outlined Significance Assessment Methodology in Section 11 above.

TABLE 6: ASSESSMENT OF IDENTIFIED ENVIRONMENTAL IMPACTS

ASPECT: SOCIO-ECONOMIC			
NATURE OF IMPACT: Employment opportunit	ties created but not to the benefit of the	local community during construction phase due to the	
current unemployment rate (socio-economic im	ipact)		
Status (positive or negative)	Positive		
	Without Mitigation	With Mitigation	
Extent	Regional (5)	Local (2)	
Duration	Short term (2)	Short term (2)	
Magnitude	Low (4)	Low (4)	
Irreplaceable loss of resources?	High (4)	Very Low (1)	
Reversibility	Moderate (3)	Irreversible (5)	
Probability	Definite (5)	Possible (1)	
Significance	Medium-High (90)	Low (12)	
Can impacts be mitigated or augmented	Yes		

Mitigation:

No mitigation is required because it is a positive impact, however, it can be augmented by the following:

- Local labourers, especially from the Ward 3 in association with the ward councillor and, local sub-contractors and SMMEs should be utilized to a greater extent and recruitment should consider gender equality.
- ♦ Work force should include youth, women and disabled. Expanded Public Works Programme targets should be met.
- ◊ Labour intensive construction methods should be adopted.
- Or Community Liaison Officer should be appointed, and Project Steering Committee established prior to construction to ensure that all social issues are resolved, and the project does not result in any delays due to unresolved issues, e.g. recruitment of local labourers.
- ♦ Appropriate training should be provided based on the outcome of the skills audit to be undertaken.



Cumulative impacts:

The unemployed individual will increase the opportunity of being employed in a similar work, therefore level of unemployment could be reduced within the area and its surroundings.

Residual Impacts:

The general workers would have gained experience and skill to work in similar projects in the future and CIBD grading of sub-contractors will improve.

Discussion:

It is important to involve the councillor of Ward 3 during labour recruitment and a skills audit should also be undertaken to determine training that could be offered to the general workers. If it important that the contractor only uses skilled labourers from other areas if they are not available in the Monyakeng/Wesselsbron area. There should be a database of local sub-contractors that will be empowered from this project.

ASPECT: PROVISION OF BULK SERVICES

NATURE OF IMPACT: Insufficient capacity to deliver bulk services to the community could result in social unrests from the beneficiaries and their wellbeing and health would deteriorate.

Status	Negative	
	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Medium-term (3)	Short Term (2)
Magnitude	High (8)	Medium (6)
Irreplaceable loss of resources?	Moderate (3)	Low (2)
Reversibility	Low (4)	High (2)
Probability	Highly Likely (4)	Possible (2)
Significance	Medium-High (80)	Low (28)
Can impacts be mitigated or augmented?	Yes	

Mitigation:

Availability of bulk services has been determined during the planning phase. Once the development has been formalized, necessary infrastructure development will form part of the construction activities to ensure that the development is connected to the municipal services before the community can be moved into their houses. The water and wastewater treatment works have adequate capacity to accommodate the development.

A new bulk line will be provided to ensure the community is provided with reliable and clean potable water.



- A new sewage gravity sewer link will be constructed so that the development can be connected to the existing line, which drains to the wastewater treatment works.
- Stormwater management will be guided by cross-fall and longitudinal slope towards a discharge point, catered for by dropping the kerb as required.
- ◊ Internal roads will be upgraded, and public transport facilities provided.
- Eskom has confirmed adequate electrical capacity to accommodate the development.

Cumulative impacts:

None expected

Residual Impacts:

Limited

Discussion:

Should the basic services not be provided after the formalization, this could result in social unrests. The services to be provided are the following, potable water, sanitation, roads, stormwater, and waste management. It should be noted that the development will not be connected to the municipal system unless the required bulk services are in place. If the capacity is not determined, it could take a longer period to provide the development and service delivery protest could be prone in the area.

ASPECT: FLORA

NATURE OF IMPACT: Transformation of the terrestrial vegetation on the assessment area associated with the Western Free State Clay Grassland (Gh9)

Status	Negative		
	Without Mitigation	With Mitigation	
Extent	Local (2)	Footprint (1)	
Duration	Long term (4)	Long term (4)	
Magnitude	Low (4)	Low (4)	
Irreplaceable loss of resources?	Low (2)	Low (2)	
Reversibility	Low (4)	Low (4)	
Probability	Highly Likely (4)	Likely (3)	
Significance	Medium (64)	Low (45)	
Can impacts be mitigated or augmented?	Yes		
Mitigation:	· ·		



be	yond the development footprint and to rehabilitate the area post-construction.
	d construction of infrastructure associated with township establishment. It is important to ensure no construction activities will be undertaken
	e existing informal settlement is already transformed but the additional area will be immediately when it is subjected to clearance of vegetation
	scussion:
	nited
	sidual Impacts:
	s, but the impact would be low with implementation of mitigation measures as it will be confined to the development footprint.
Сι	imulative impacts:
-	significant overgrazing of surrounding undeveloped areas and attempt to improve /restore the ecological condition over time
ò	Sufficient grazing management plans and practices must be implemented for livestock of the local community in order to prevent continued
0	A walkover Study must be conducted by an Ecologist/Botanist prior to commencement of vegetation clearance during site preparation.
\diamond	Areas surrounding the construction footprint must be adequately rehabilitated as soon as practically possible after construction.
v	implemented outside the footprint areas of the development.
\diamond	Existing roads in proximity to the development area must be used during construction. No new roads or tracks to be constructed or
\diamond	Adequate operational procedures for machinery and equipment must be developed to strictly govern movement of machinery only within project footprint area and ensure environmentally responsible construction practices and activities.
^	the undeveloped surrounding areas outside the cordoned off area.
\diamond	Adequately cordon-off the construction area and to ensure that no construction activities, machinery, or equipment operate or impact within
	settlement to the west so as not to impact on the surrounding natural vegetation.
	footprint area. If the site camps are required outside the development area, they must be set up in the adjacently located existing residential
\diamond	No site construction camps may be established within the surrounding undeveloped areas to the north, east and south outside the development
	and no unnecessary/unauthorised footprint expansion into the surrounding areas may take place.
\diamond	The development construction footprint must be kept as small as practically possible to reduce the surface impact on surrounding vegetation



ASPECT: FLORA		
NATURE OF IMPACT: Transformation of an Eco	ological Support Area two (ESA :	2) associated with the additional area
Status	Negative	
	Without Mitigation	With Mitigation
Extent	Regional (2)	Footprint (1)
Duration	Long term (4)	Long term (4)
Magnitude	Low (4)	Low (4)
Irreplaceable loss of resources?	Moderate (3)	Low (2)
Reversibility	Low (4)	Low (4)
Probability	Highly Likely (4)	Likely (3)
Significance	Medium (72)	Low (45)
Can impacts be mitigated or augmented?	Yes	
Mitigation		

Mitigation:

- A minimum 250m buffer zone must be implemented around the pan. The development construction footprint must be kept as small as practically possible to reduce the surface impact on surrounding vegetation and no unnecessary/unauthorised footprint expansion into the surrounding areas may take place.
- No site construction camps may be established within the surrounding undeveloped areas to the north, east and south outside the development footprint area. If the site camps are required outside the development area, they must be set up in the adjacently located existing residential settlement to the west so as not to impact on the surrounding natural vegetation.
- Adequately cordon-off the construction area and to ensure that no construction activities, machinery, or equipment operate or impact within the undeveloped surrounding areas outside the cordoned off area.
- Adequate operational procedures for machinery and equipment must be developed to strictly govern movement of machinery only within project footprint area and ensure environmentally responsible construction practices and activities.
- Existing roads in proximity to the development area must be used during construction. No new roads or tracks to be constructed or implemented outside the footprint areas of the development.
- Areas surrounding the construction footprint must be adequately rehabilitated as soon as practically possible after construction.
- A walkover Study must be conducted by an Ecologist/Botanist prior to commencement of vegetation clearance during site preparation.
- Sufficient grazing management plans and practices must be implemented for livestock of the local community in order to prevent continued significant overgrazing of surrounding undeveloped areas and attempt to improve /restore the ecological condition over time



Cumulative impacts:

Yes, but the impact would be low with implementation of mitigation measures as it will be confined to the development footprint.

Residual Impacts:

Limited

Discussion:

The existing informal settlement is already transformed but the additional area will be immediately when it is subjected to clearance of vegetation and construction of infrastructure associated with township establishment. It is important to ensure no construction activities will be undertaken beyond the development footprint and to rehabilitate the area post-construction. Restoration of the vegetation during operational phase will not be practicably feasible. However, the vegetation on the neighbouring area outside the development footprint will remain intact. The ecological significance is due to the location of the pan thus the recommended protective buffer zone must be adopted.

ASPECT: FLORA

NATURE OF IMPACT: Destruction of-/damage to Red Data Listed Nationally or Provincially protected species individuals/habitats associated with the assessment area

Status	Negative		
	Without Mitigation	With Mitigation	
Extent	Local (2)	Footprint (1)	
Duration	Long term (4)	Long term (4)	
Magnitude	Low (4)	Low (4)	
Irreplaceable loss of resources?	Moderate (3)	Low (2)	
Reversibility	Low (4)	Low (4)	
Probability	Likely (3)	Probable (2)	
Significance	Medium (51)	Low (30)	
Can impacts be mitigated or augmented?	Yes		
	•		

Mitigation:

• No Red Data Listed, provincially or nationally protected species or any other conservational significance were found.

An additional ecological walkthrough be conducted prior to commencement of the project during the flowering period of underground bulbous plant species, if deemed necessary by the DESTEA.

♦ Construction activities must be confined to the development footprint.

Cumulative impacts:



No
Residual Impacts:
Limited
Discussion:

No species of conservational significance or Red Data Listed, Nationally or Provincially protected Species were located within the assessment area. However, with the undertaking of an ecological walk over study, the uncertainty would be low considering the season that the assessment was undertaken.

ASPECT: ALIEN INVASIVE SPECIES				
NATURE OF IMPACT: Establishment and spread of alien invasive species				
Status	Negative			
	Without Mitigation	With Mitigation		
Extent	Local (2)	Footprint (1)		
Duration	Long term (4)	Short term (2)		
Magnitude	Medium (6)	Low (2)		
Irreplaceable loss of resources?	Low (2)	Low (2)		
Reversibility	High (2)	Reversible (1)		
Probability	Likely (3)	Possible (2)		
Significance	Medium (48)	Low (16)		
Can impacts be mitigated or augmented?	Yes			

Mitigation:

All Category 1b and 2 alien invasive species individuals currently within the project area, must be actively eradicated and adequately disposed of in accordance with the National Environmental: Biodiversity Act (Act 10 of 2004); Alien Invasive Species Regulations, 2014.

- If any Category 2 species are however left in situ, alien invasive permits must be obtained from the competent authority in accordance with the above-mentioned regulations.
- Category 3 species may remain prescribed in areas and provinces but further planting, propagation and/or trade is prohibited.
- ♦ There should be a dedicated person responsible for the control of alien vegetation species during construction phase.
- Implement an adequate Alien Invasive Species Establishment Management and Prevention Plan compiled by a suitably qualified and experienced ecologist during the construction and operational phases.
- ♦ Construction vehicles and equipment/machinery must be cleaned before entering the construction site.
- Areas surrounding the construction footprint must be adequately rehabilitated as soon as practically possible after construction in order



to prevent significant alien invasive species establishment.

Cumulative impacts:

Yes, because alien invasive species have been recorded on the proposed site.

Residual Impacts:

Limited

Discussion:

The alien invasive species tends to spread during construction activities, and they end up even infesting the surrounding areas. This is due to the movement/removal of topsoil and introduction by construction vehicles and/or machinery/equipment. To curb this from happening, introduction of alien species must be avoided and the existing once must be removed by hand/machinery, if it fails then herbicides may be used. Should the spread not be mitigated, surrounding area may be heavily infested and grazing potential for the livestock of the local community will be lost.

ASPECT: NATURAL DRAINAGE PATTERNS		
NATURE OF IMPACT: Alteration of the topograph	y due to earthmoving activities cou	Ild result in increased surface water run-off and flooding.
Status	Negative	
	Without Mitigation	With Mitigation
Extent	Local (2)	Footprint (1)
Duration	Permanent (5)	Short term (2)
Magnitude	Very High (10)	Low (4)
Irreplaceable loss of resources?	High (4)	Low (2)
Reversibility	Low (4)	High (3)
Probability	Definite (5)	Probable (1)
Significance	Very High (125)	Low (24)
Can impacts be mitigated or augmented?	Yes	
Mitigation:		

Mitigation:

- The protective buffer zone of 250m around the pan must be adopted in the layout and demarcated prior to commencement of construction activities.
- Stormwater Management Plan should be compiled as part of the detailed design to avoid stormwater concentration and implemented.
- The stormwater management measures incorporated into the development layout designs should be inspected on a minimum biannual basis (twice a year). They must be adequately maintained to ensure that sufficient volumes and quality of surface water



runoff from the footprint area is still channeled back into the water drainage line to ensure its continued flow and subsequent ecological functionality and integrity.

- ♦ Construction activities should be limited to the development footprint.
- On completion of construction activities, topography should blend with that of the surrounding area.

Cumulative impacts:

There could be cumulative impacts if mitigation measures are not implemented and they could affect the surrounding areas. However, with mitigation, the impacts will be minimal.

Residual Impacts:

Limited

Discussion:

If the natural drainage channel is altered, then localized flooding will occur. This could damage properties and streams and rivers will not be recharged as surface runoff will be disturbed. The localized flooded water will have a foul odour and become a breeding ground for insects and bacteria.

ASPECT: WATER POLLUTION

NATURE OF IMPACT: Contamination of the flow regimes of the two larger more significant first-order ephemeral water drainage lines and the associated local water catchment and drainage areas

Status	Negative		
	Without Mitigation	With Mitigation	
Extent	Regional (3)	Local (2)	
Duration	Long term (4)	Short term (2)	
Magnitude	Medium (6)	Low (4)	
Irreplaceable loss of resources?	Moderate (3)	Low (2)	
Reversibility	Low (4)	Low (4)	
Probability	Highly Likely (4)	Possible (2)	
Significance	Medium-High (80)	Low (28)	
Can impacts be mitigated or augmented?	Yes		

Mitigation:

♦ To preserve the remaining ecological integrity and functionality of the nearby pan, a minimum protective buffer zone must be implemented around the entire pan.



- Adequate stormwater management measures must be implemented for the entire assessment area during the construction and operational phases. This must be done to sufficiently manage stormwater runoff and clean/dirty water separation in order to prevent any significant contamination from occurring.
- If hydrocarbons or other chemicals are to be stored on site during the new construction phase, the storage areas must be situated far away as practicably as possible from the water drainage area and pan. The storage area must be in the south-western portion of the assessment area.
- A Hydrocarbons and other chemical storage area, handling, usage, and spillage clean-up procedures must be developed, and all relevant construction personnel must be sufficient trained on and apply these procedures during the entire new construction phase.
- A comprehensive pan health assessment and aquatic bio-monitoring assessment must be conducted prior to commencement of the construction phase. Such an assessment must be conducted by a suitably qualified and experienced ecologist.
- Water samples of the pan must be collected directly downstream of the proposed project area on a minimum annual basis. The quality of these samples must be chemically and biologically analysed by an accredited laboratory and compared to the baseline data collected during the initial assessment prior to the commencement of the construction phase.
- If any reduction in pan health or chemical and biological water quality is determined due to the project, the competent authority must immediately be notified and the necessary steps must be followed by the applicant to locate and remediate the source of contamination/health reduction as soon as possible.

Cumulative impacts:

Low given its current condition and functionality in relation to the surrounding land uses

Residual Impacts:

Limited

Discussion:

If the natural drainage channel is altered, then localized flooding will occur. This could damage properties and the drainage line will not be recharged as surface runoff will be disturbed. The localized flooded water would have a foul odour and become a breeding ground for insects and bacteria, and this could negatively affect the residents.



operation of machinery, which could result in soil e	rosion.		
Status	Negative		
	Without Mitigation	With Mitigation	
Extent	Local (2)	Footprint (1)	
Duration	Long term (4)	Short term (2)	
Magnitude	Low (4)	Low (4)	
Irreplaceable loss of resources?	Low (2)	Low (2)	
Reversibility	High (2)	High (2)	
Probability	Medium (3)	Possible (2)	
Significance	Low (42)	Low (24)	
Can impacts be mitigated or augmented?	Yes		

Mitigation:

ASPECT: SOIL EROSION

Exposure of bare ground should be minimized, and topsoil stripping limited to the development footprint excluding areas identified as open spaces in the layout and they should be cordoned off.

- Ocleared and grubbed topsoil must be stockpiled.
- ♦ No topsoil stockpiling should be allowed within the protective buffer zones of the water pan
- Adequate erosion management measures must be implemented for the entire assessment area during the new construction and operational phase to prevent any significant erosion from occurring.
- Soil conservation measures such as berms, gabions and mats should be used on site to help reduce erosion.
- Areas that were compacted during construction should be ripped to allow re-establishment of natural vegetation.
- O Movement of construction vehicles should be limited to the access road and hauling roads approved by the RE/ECO to avoid compacting of soils in areas not required for the development footprint.
- ♦ All disturbed areas should be rehabilitated immediately when construction ceases to abate channel and gulley formation.

Cumulative impacts:

Low

Residual Impacts:

Limited



Discussion:

There is no vegetation cover on site. Should the outlined mitigation measures not be implemented, there could be excessive loss of topsoil and the risk of soil erosion could result in increased. Stockpiling of topsoil will assist with rehabilitation of the site after completion of the construction phase; therefore, it should be kept weed and litter free.

ASPECT: AIR QUALITY

NATURE OF IMPACT: Dust generation during the construction phase and its impact on the health of the surrounding land users and the workforce.

Status	Negative		
	Without Mitigation	With Mitigation	
Extent	Local (2)	Footprint (1)	
Duration	Short term (5)	Short term (2)	
Magnitude	Very High (10)	Low (4)	
Irreplaceable loss of resources?	Moderate (3)	Low (2)	
Reversibility	Moderate (3)	Low (4)	
Probability	High (4)	Probable (2)	
Significance	Medium (64)	Low (23)	
Can impacts be mitigated or augmented?	Yes		

Mitigation:

- Occasional wetting of access roads, hauling roads and construction site should be done by using a water tank.
- ♦ Speed limit of 20km/h should be adhered to and 40km/h on the access road.
- Water should be obtained from the municipality or an alternative source.
- No water may be obtained from a stream or river without obtaining a Water Use License from the Department of Water and Sanitation.
- ♦ Workforce must be provided with Personal Protective Equipment, e.g. dust mask and eyecup.
- ♦ Construction vehicles and machinery should be serviced regularly to minimize the exhaust fumes.

Cumulative impacts:

None expected

Residual Impacts:

N/A

Discussion



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Dust generation is expected during construction and it could result in respiratory of cardiovascular health problems. Dust could also irritate the eyes, throat, and skin, however, should the outlined mitigation measures be implemented, then the impact will be minimized.

NATURE	OF IMPACT: Excessive generation of noise		urrounding landusers, owners and workforce.	
Status		Negative		
		Without Mitigation	With Mitigation	
Extent		Local (2)	Footprint (1)	
Duration		Short term (2)	Temporary (1)	
Magnitude		Very High (10)	Low (4)	
Irreplaceable loss of resources?		Moderate (3)	Low (2)	
Reversibility		Low (4)	Low (4)	
Probability		Definite (5)	Possible (2)	
Significa	nce	Medium (70)	Low (22)	
Can impacts be mitigated or augmented?		Yes	· · · · · · · · · · · · · · · · · · ·	
Mitigatio	n:	·		
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Discussion:

Contractor and workforce should be considerate of the neighbouring community, noise levels during construction and operation should be within the acceptable limits so that it does not cause any hearing impairment to the workforce and sleep disturbances to the surrounding land users or owners. Construction should be limited to normal working days and should there be a need to work after hours, the community should be informed. Operation of heavy machinery after hours should be prohibited, and no blasting is allowed without necessary permit.

ASPECT: WASTE MANAGEMENT

NATURE OF IMPACT: Incorrect and improper storage and disposal of solid waste during construction that could result in contamination of the environment and reduce visual aesthetics of the area.

Status	Negative		
	Without Mitigation	With Mitigation	
Extent	Local (2)	Footprint (1)	
Duration	Short term (2)	Temporary (1)	
Magnitude	Very High (10)	Low (4)	
Irreplaceable loss of resources?	Moderate (3)	Low (2)	
Reversibility	Low (4)	Low (4)	
Probability	Definite (5)	Probable (2)	
Significance	Medium (70)	Low (22)	
Can impacts be mitigated or augmented?	Yes	Yes	

Mitigation:

♦ Contractor should provide a method statement for waste management prior to construction.

◊ System for regular waste removal must be set up.

- Refuse receptacles with lids should be placed at the camp depot and construction site. They should be marked to avoid mixing of waste streams and easily accessible.
- Burning of waste should be prohibited.
- ♦ All excavations should be backfilled after completion of construction to prevent illegal dumping.
- Letter or agreement between contractor and pollution control officers or companies dealing with hazardous waste should be on site.

Cumulative impact

Low as there are illegal dumping site which the municipality must remove. Training and initiatives to raise awareness highlighting that illegal dumping is a criminal offence must be introduced. Clean-up initiatives must be implemented for all illegal dumping sites within the area.



Residual Impacts:

Limited

Discussion:

There should be a designated place with refuse bins so that there is no littering. Waste management should be included in toolbox talks and good housekeeping should always be maintained.

Status	Negative		
	Without Mitigation	With Mitigation	
Extent	National (5)	Regional/Provincial (4)	
Duration	Permanent (5)	Short term (2)	
Magnitude	Very High (10)	Low (4)	
Irreplaceable loss of resources?	Moderate (3)	Low (2)	
Reversibility	Low (4)	Low (4)	
Probability	Definite (5)	Possible (2)	
Significance	Very High (100)	Low (32)	
Can impacts be mitigated or augmented?	Yes		

Should fossil remains be discovered during any phase of construction, either on the surface or exposed by fresh excavations, the Environmental Control Officer responsible for this development should be alerted. Such discoveries ought to be protected and the ECO alert SAHRA so that appropriate mitigation can be taken by a professional palaeontologist and the specialists would require a collection permit.

The chance finds protocol must be in place and implemented when required.

If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit must be alerted immediately.

Cumulative impacts:

None as there are no known Stone Age sites (including rock art) in the area, and none was found during the survey. This includes single or scattered concentrations of stone tools. No Iron Age sites, features or cultural material was identified during the assessment of the study area. No historical sites or features could be identified from this map in the study area.



Residual Impacts:

None

Discussion:

Although no archaeological or cultural heritage resources and palaeontological were identified during the site assessment, should the contractors make any archaeological, geological, or newly uncovered Palaeontological artefacts, must be reported to the ECO/resident engineer who in turn must protect it then report it to SAHRA and DESTEA within 24 hours. Construction work must not proceed if it will cause damage to such findings. Unauthorized persons may not remove artefacts of cultural or historical importance from the site.

ASPECT: SPREAD OF HIV/AIDS (Health Impact)

NATURE OF IMPACT: Risk of the increase of Human Immuno-Virus/Acquired Immuno-Deficiency Syndrome (HIV/AIDS) and other Sexually Transmitted Diseases due to the increase in income and introduction of people (employed in the project) which may cause unsafe behaviours and casual sexual relationship.

Status	Negative	Negative		
	Without Mitigation	With Mitigation		
Extent	Regional (4)	Regional; (4)		
Duration	Permanent (5)	Permanent (5)		
Magnitude	Very High (10)	Medium (6)		
Probability	Definite (5)	Possible (2)		
Irreplaceable loss of resources?	Moderate (3)	Low (2)		
Reversibility	Low (4)	Low (4)		
Significance	Very High (95)	Medium (30)		
Can impacts be mitigated or augmented?	Yes	Yes		

Mitigation:

To build an HIV resilient workforce by implementing the following:

- 1. HIV/Aids awareness training from an accredited institution.
- 2. Ensuring condoms are made available on site.
- 3. Support peer education programmes within the workforce.
- 4. Promote local procurement, e.g. subcontracting or use of the local community through the involvement of the ward councillors or recruitment strategy that is used by the municipality.

Cumulative impacts:



Yes
Residual Impacts:
Yes
Discussion:
Construction sites tend to result in introduction of people into areas, seeking employment and some leaving their families behind but then end up having casual unprotected sex, especially in instances whereby there are labour camps others end up using their income, this is prevalent to first time general worker as a means to be involved in promiscuous sex. This is one of the factors that cause the spread of HIV/Aids. However, this can be managed if HIV/Awareness training is provided to the workers from an accredited institution to ensure the workforce is aware of the consequences of having casual unprotected sex and promote voluntary testing and treatment that is provided by the Healthcare institutions as well as basic financial management. A partnership may also be formed with the local Health departments, e.g. government clinics to raise awareness in the community to prevent further transmission of HIV/Aids. Local labour procurement should also be prioritized to minimize the relocation of new people into the community.



13. ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

Assumptions:

- 1. The scope is limited to assessing the potential impacts associated with the formalization of the informal settlement and additional area; therefore, the effect on the surrounding environment is based on the current land use as no future development plans were known.
- 2. All Technical information provided to NSVT Consultants is deemed valid and correct at the time it was provided.
- 3. A detailed Stormwater Management Plan will be compiled and sent to DWS for approval before commencement of construction activities.
- 4. Since during the public participation process, no indigenous local knowledge came forth regarding the proposed site, it is assumed that there are no sensitive cultural sites on the proposed site.

Limitations/Gaps in Knowledge/Uncertainty:

- There is a level of uncertainty in the assessing the significance of the identified impacts as it relies on the degree of the EAP's judgement.
- The assessment of the noise is based on the levels generally associated with construction activities, e.g. vehicle movement, earthmoving activities, excavations, etc.
- NLM will ensure that the mitigation measures and recommendations are implemented and that an ECO will be appointed prior to the commencement of the construction phase.

14. MOTIVATION FOR RESPONSE OF EMERGENCY

The proposed township establishment is not considered to be an emergency as it happened over the years. However, the need to reduce housing backlog in the Monyakeng/Wesselsbron area and to eradicate informal settlement is a priority.

15. DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

Draft Environmental Management Plan (EMPr) identifies impacts that occurred as a result of the unlawful undertaking of activities that might have a harmful effect on the environment and activities that would occur on the environment and mitigation thereof if authorisation is granted. It gives guidelines to the responsible person(s) to follow appropriate reinstatement and contingency plans in the case of various possible impacts, thus the copy of the EMPr should be given to the contractor to ensure adherence.

A set of environmental management measures for each phase of the project has been prepared to meet the following overall environmental Management objectives:

- To minimise risks arising from the presence of alien plant species
- To minimise disturbance to animal species
- To minimize soil erosion potential
- To minimise disturbance to the local (social disruption)
- To reduce the problem of bad visual impression during construction
- To minimise the problem of noise



- To minimise excessive generation of dust
- To minimise damage to archaeological objects
- To manage waste generation

The Draft EMPr is attached hereto as Appendix 15.

16. RECOMMENDATIONS AND CONCLUSIONS

It should be recognized that no development can be completed without impacting in some way on the receiving environment; therefore, it is imperative that negative impacts are avoided where possible and if not then minimized to a greater extent. It is also imperative to determine if an informal settlement may be formalized, taking into consideration floodlines, geotechnical considerations, road network, bulk services connection and planning principles. Any development as a way of promoting sustainable development should be in line with the principles of NEMA, sustainable development goals and other plans within the region, e.g. Free State Development and Growth Strategy.

From the assessment of the significance ratings of impacts, technical investigations, specialists' studies conducted, it is evident that Khalinkomo Informal Settlement could be formalized from an unregulated settlement to a planned and regulated township and incorporate the additional undeveloped area to the development footprint with the incorporation of the recommendations below:

Civil Services: New water bulk line if the existing one does not have enough pressure; therefore, this should be determined prior to commencement of construction. New gravity sewer links must be combined with the existing line drains to the wastewater treatment plant should be included in the development. Stormwater Management Plan should be compiled prior to commencement of the construction activities and stormwater from the roads will be guided by crossfall and longitudinal slope towards a discharge point, catered for by dropping the kerb as required. The criteria that internal water supply, sewerage infrastructure, internal roads and stormwater management measures outlined in the civil services report must be adhered to.

Floodline: There are no visible rivers and tributaries within the vicinity of the proposed development. The closest tributaries are the Sandspruit to the north and the Vetspruit to the south west, both of which are further away from the proposed developmental sites. Due to this, they will not in any way affect the stormwater flooding on the proposed development site. The development of residential area will not be affected by 1:100-year floodline.

Geotechnical: There are no geological features such as faults and lineaments within the proposed site and it is not characterized by soluble rocks such as dolomite or limestone. The identified undevelopable zones are located outside the proposed site thus leaving it developable. However, the soils are expected to be slightly corrosive towards metals, therefore, testing of the soils should be conducted in order to identify the corrosiveness of the earth metals on site. No groundwater seepage within any of the test pit excavated by previous engineers. There is no readily available construction material identified, therefore it is recommended that borrow pit investigations be considered for construction of gravel mainly roads/layer work. The area is classified as potential flooding zone; therefore, stormwater management is a necessity and erodibility may be classified as



Category 1 (low risk). There is no evidence of historic ground failure due to liquefaction. A Phase 1 Geotechnical Investigation must be undertaken to provide guidance for design engineers.

Traffic: More than 150 peak hour trips area expected to be generated since vehicle ownership level and income is low in the area, it is recommended that formal public transport embayments, within 500m walking distance, with sidewalks that link seamless to the internal non-motorized transport. Suitable dropped kerbs are to be provided where necessary to allow for wheelbarrow access. A traffic count must also be undertaken as one was not done due to the nationwide lockdown.

Ecological: Adequate stormwater management measures to ensure enough volumes and quality of surface water run-off from the footprint is still channelled back into the water drainage area towards the pans. A 250m buffer must be adopted to avoid impact on the pan located within 120m north east of the site. For the surrounding grazing lands, enough grazing management plans and practices must be implemented to prevent overgrazing and for the ecological conditions to be restored. An ecological walkover study must be conducted prior to the commencement of construction activities or site preparation. A comprehensive pan health assessment and aquatic bio-monitoring assessment must be conducted prior to commencement of the construction phase. Such an assessment must be conducted by a suitably qualified and experienced ecologist. Water samples of the pan must be collected directly downstream of the proposed project area on a minimum annual basis. The quality of these samples must be chemically and biologically analysed by an accredited laboratory and compared to the baseline data collected during the initial assessment prior to the commencement of the construction phase. If any reduction in pan health or chemical and biological water quality is determined due to the project, the competent authority must immediately be notified and the necessary steps must be followed by the applicant to locate and remediate the source of contamination/health reduction as soon as possible.

During the public participation process, no objections were received for the proposed formalization of the informal settlement. The development will also enable the municipality to decrease their housing development backlog and work towards eradicating of illegal settlements and to provide basic amenities, e.g. church, sport ground, and parks. The future residents will have proper shelter and access to basic services and in turn their livelihood will be improved, therefore there will be no infringement on their Environmental Right as contained in the Constitution.

Given the above, it is highly recommended that the authorization be granted for the proposed Khalinkomo Township establishment provided mitigation measures outlined to minimize the impacts are adopted and the recommendations above are considered.



REFERENCES

Department of Environmental Affairs and Tourism. 2006. Guideline 4: Public Participation in support of the EIA Regulations. Pretoria

Mucina, L., Rutherford, M.C. and Powrie, L.W. (eds) 2006. Vegetation Map of South Africa, Lesotho, and Swaziland. 1:1000 000 scale sheet maps. South Africa Biodiversity Institute, Pretoria. ISBN 1-919976-22-1

Nala Local Municipality 2017/2022 Integrated Development Planning



DECLARATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I, LORATO TIGEDI PR. SCI. NAT. declare that I –

- (a) act as the independent environmental practitioner in this application;
- (b) do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014 as amended;
- (c) do not have and will not have a vested interest in the proposed activity proceeding;
- (d) have no, and will not engage in, conflicting interests in the undertaking of the activity;
- (e) undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2014 as amended;
- (f) will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- (g) will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the Department in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the Department may be attached to the report without further amendment to the report;
- (h) will keep a register of all interested and affected parties that participated in a public participation process; and
- (i) will provide the Department with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

Signature of the Environmental Assessment Practitioner:

NSVT Consultants

Name of company:

2020-11-17

Date:



APPENDIX 1.2.3 <u>CV OF EAP</u>



APPENDIX 2.1A SPATIAL DEVELOPMENT FRAMEWORK MAP



APPENDIX 2.1B CIVIL SERVICES



APPENDIX 2.1C TRAFFIC STATEMENT



APPENDIX 2.2 LAYOUT MAP FOR THE PROPOSED DEVELOPMENT



APPENDIX 2.3 LOCALITY MAP FOR THE PROPOSED SITE



APPENDIX 2.4 GOOGLE SATELLITE IMAGERY OF THE PROPOSED SITE



APPENDIX 2.4.1 PHOTOGRAPHIC HISTORY



APPENDIX 5.1.3 PRELIMINARY GEOTECHNICAL REPORT



APPENDIX 5.1.4 FLOODLINE DETERMINATION REPORT



APPENDIX 6.1.1 ECOLOGICAL ASSESSMENT REPORT



APPENDIX 6.3 HERITAGE ASSESSMENT REPORT



APPENDIX 15DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

