SECTION 24G ENVIRONMENTAL IMPACT REPORT

S24G VERGENOEG TOWNSHIP ESTABLISHMENT, WESSELSBRON

DESTEA REF NO: 24G/27,12/19/03







AUGUST 2019

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").

PREPARED BY:

NSVT Consultants PO Box 42452, Heuwelsig, Bloemfontein 9332

> Cell: 082 784 8259 Telephone: 051 430 1041/2 Fax: 086 239 9133

Contact person: Lorato Tigedi Pr. Sci. Nat.

Email: lorato@nsvt.co.za

PREPARED FOR:

Nala Local Municipality P.O. Box 12, Bothaville 9660

Telephone: 051 514 9200 Fax: 051 515 3922

Contact person: Boitumelo Chris Mokomela

Email: mm@nala.org.za





PROJECT INFORMATION

REPORT TITLE: ENVIRONMENTAL IMPACT REPORT

REPORT STATUS: Final

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 Vergenoeg Township Establishment, Wesselsbron

APPLICANT: Nala Local Municipality

PROJECT CONSULTANT: Hoxana Holdings

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 Hoxana Consulting Engineers on behalf of Nala Local Municipality to conduct the Environmental Impact Assessment Report for rectification 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, i.e. informal settlement. The muncipality has deemed it necessary to formalize Vergenoeg Informal Settlement so that they can provide basic services to the area and for the residents to have serviced stands with stand number. The formalization will cater 404 erven with associated amenities and it is situated on Farm Herman 236, in Monyakeng, Wesselsbron. Wesselsbron is located approximately 5km from the proposed site and it is within the urban edge of the municipality, on an area earmarked for residential development in the Spatial Development Framework. The layout designs should include stormwater management and floodlines as the proposed site is adjacent to a drainage line and pan, which currently aren't affected by the informal settlement. With the proposed formalization of the informal setlement, 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 determined that there proposed site is totally transformed by the establishment of the informal settlement and sensitive areas were indentified in close proximity of the site, therefore, specialists studies, *i.e.* Heritage, Ecological and Wetland Delineation were undertaken to identify the environmental impacts associated with the proposed formalization taking into congnizance the surrounding site and land uses and from the findings, it was concluded that the proposed formalization could go ahead as planned if the mitigation measures outlined were implemented and recommendations adopted as part of the conditions.

The environmental impacts that were identified, were assessed using the Signficance Assessment Methodology, whereby the significance was assessed without and with adoption of the mitigation and management measures, and it was based on the nature of the impact, extent and duration, reversibility, probability, magnitude and whether it is cumulative and has any residual risks. The impacts identified during the planning phase, is the socioeconomic impact aimed at addressing the high unemployment rate in the area and the provision of bulk services to the proposed development, whereby investigations were undertaken to ensure that the development will be able to be connected to the existing connections and the road network. With management measure the identified positive impacts could be ameliorated, e.g. additional infrastructure that should be included in the formalization to ensure the area is provided with basic services were recommended. Negative impacts i.e. increased risk of soil erosion, stormwater management by ensuring contaminated water doesn't flow into the nearby pan, destruction of cultural artefacts excessive dust and noise generation during construction associated with the construction phase could also be mitigated from high to low and insignificant with the implementation of the mitigation measures outlined and these impacts are of a short duration without causing any permanent damages. The impact with a medium significance rating is for the spread of HIV/Aids, which needs to be adressed as HIVAids in the area is very prevalent thus it's imperative to implement the measures and support from the Department of Health should be sought if the rating is to be reduced further. The operation phase of the development will be



administered by the NLM municipal by-laws reguating various aspects of a residential area, e.g noise, waste management, etc.

From the Public Participation Process undertaken, whereby backgound information document was distributed, on-site notice placed, posters placed at prominent places, advertisment placed in the Vista newspaper and the reviewing of the draft report, no objections were received, thus the project is deemed to be socially acceptable.

The recommendations aimed at ensuring that the development doesn't result on further degradation of the surrounding environment were made, *i.e.* fencing off of the cemeteries in the vicinity of the proposed site, pan health assessment and aquatic bio-monitoring assessment and to collect water samples from the pan for monitoring prior to commencment of construction. A Water Use License Application is required as the development area is within 500m of a watercourse.

Given the above information, the EAP hereby recommends that the provided recommendations, condition and mitigation measures outlined in the EIAR and EMPr are adhered to.



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LIST OF ABBREVIATIONS

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



1 PROJECT DETAILS

1.1 INTRODUCTION

NSVT Consultants was appointed by Hoxana Holdings on behalf of Nala Local Municipality ("NLM") to lodge an application to rectify unlawful commencement of EIA listed activities associated with the formalization of Vergenoeg Informal Settlement in Wesselsbron. This Environmental Impact Assessment Report constitutes a formal application for rectification 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 & ENGINEERS & EAP

1.2.1 DETAILS OF APPLICANT

Project Applicant	Nala Local Municipality		
Contact Person	Boitumelo Chris Mokomela		
Postal Address	P.O. Box 12, Bothaville, 9660		
Telephone	051 853 1111		
Email	mm@nala.gov.za	Cell	

1.2.2 DETAILS OF THE PROJECT CONSULTANT

Project Consultants	Hoxana Holdings		
Contact Person	Bashizi Mudhawa		
Physical Address	Unit 3; Berkley Office Park; Technopark; Centurion; 0157		
Telephone	087 095 1643		
E-mail	mudhawab@hoxanaholdings.co.za	Cell	073 873 3168



1.2.3 DETAILS OF ENVIRONMENTAL ASSESSMENT PRACTITIONER

Environmental Consultants	NSVT Consultants		
EAP	Lorato Tigedi <i>Pr. Sci. Nat.</i>		
Postal Address	P. O. Box 42452, Heuwelsig, 9332		
Telephone	(051) 430 1041/2	Facsimile	086 239 9133
E-mail	lorato@nsvt.co.za	Cell	082 784 8259
Qualifications	Masters in Environmental Management (Mini- Thesis Outstanding) B. Sc Hons in Wildlife B. Sc (Natural Science)	Experience	16 years in the environmental management field. As an EAP she has completed environmental impact assessment, basic assessment, drafting of EMPs and environmental compliance monitoring for various development within the Free
Training	Resources & Sustainability, Physical & Biological Environment and	Professional	States., NW, NC, EC and FS Provinces.
	Informatics Project Management for Environmental Management	Affiliation	SACNASP Professional Natural Scientist-400161/09 Member of International Association for Public
	Social & Economic Sustainability		Participation Southern Africa Affiliate - (2010/ZA/FS0001)
	Use of Matrices in EIA Public Participation		Member of International Association for Impact Assessment SA - 2191
	Training Social Impact Assessment IWRM Water Use Authorisation and Water Use License Applications		
	Introduction to Environmental law		



2 LISTED ACTIVITY TRIGGERED

The activity that Nala Local Municipality unlawfully commenced with, prior to obtaining the environmental authorisation in 2001 from the DESTEA in terms of the Environmental Conservation Act (Act 73 of 1989) Environmental Impact Assessment Regulation ("EIA") is "The change of land use from agricultural or undetermined use to any other land use" and the activities that would be applicable in terms of EIA Regulations, 2014 (as amended 07 April 2017) are listed below:

NEMA GNR 983 (327): Listing Notice 1

- Activity 27: The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation except where such clearance of indigenous vegetation is required for;
 - (i) the undertaking of a linear activity; or
 - (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

NEMA GNR 985 (324): Listing Notice 3

Activity 12(b): The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan (iv) within 100 metres from the edge of a watercourse or wetland.

3 PROJECT DESCRIPTION

3.1. BACKGROUND

NLM could not provide the residents of Vergenoeg as they did not have available formalised stands, then the residents occupied the Vergenoeg area adjacent to Monyakeng, a formalised area in 2001. Thereafter instead of relocating the residents, NLM deemed it necessary to formalise the informal settlement as it is in an area that could be developed into a formal residential area considering its accessibility and distance to bulk service connections. As the living conditions of the residents were poor and residents didn't have water, municipality deemed it necessary to provide them with three (3) communal water standpipes in 2016 so that the residents can have access to clean water although the service is a lower level of service. Some section closer to the formalized area have mast light too. Vergenoeg Informal Settlement is located on approximately 20 hectares at Farm Herman 236 in Monyakeng, Wesselsbron. The said portion of land is in the jurisdiction of NLM It is located to the north of Monyakeng adjacent to the existing Vergenoeg cemetery and the area is earmarked for residential development in the Spatial Development Framework ("SDF") of the municipality as shown in the SDF Map attached hereto as **Appendix .3.1A**.

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, a geotechnical investigation was undertaken by Mocha Labs and the Geotechnical Report compiled by Mocha Labs is attached hereto as Appendix 3.1B. The findings from the investigation shown that there are no fatal flaws that



could make the site unsuitable for residential development and no groundwater was encountered during excavations. Although there is a section shown in Figure 4 of the report, which would require "recognized engineering standards followed by foundation" as they are identified as Zone A, which classifies as Site Class "P" contaminated soils according to the NHBRC. The contamination of soils could be from illegal dumping activities, cattle farm or dry swamp.

The <u>Engineering Services Report</u> providing information on the ability of the municipality to accommodate the proposed residential development is contained in **Appendix 3.1C**, which is compiled by Hoxana Holdings. According to the determination of the capacity for provision of bulk services, it's confirmed that the wastewater treatment plant is able to accommodate effluent from the proposed development as it was upgraded recently but gravity sewer will have to be constructed, however, for water supply the capacity of the main line needs to be confirmed.

With regards to stormwater management, surface drainage from the roads with slopes similar to that of the receiving ground will be used and it will be guided by crossfall and longitudinal slope towards a discharge point, catered for by the kerb as required. From the Traffic Impact Assessment that was done by Hoxana Holdings, it was confirmed that the roads leading to Vergenoeg are in a very bad state, most of the road network are gravel road and that the area generally has a low traffic volume. Therefore, to ensure that the conditions of the roads in the area meet the minimum acceptable level, they should be upgrading and/or rehabilitation of intersections and roads that are identified as access points to the area. Based on the proposed layout, there will be two (2) points to access the settlement. Stormwater drains should also be installed on roadside to ensure an all-weather access. The Traffic Impact Statement is attached hereto as **Appendix 3.1D**.

The area will be included in the Municipal refuse collection system, whereby the collected waste will be disposed to the municipal solid waste site. Although the electricity supply wasn't discussed in the Civil Services Report, it is assumed that the area will also be provided with electricity. Therefore, it is evident that with upgrading of some of the bulk services, NLM will be able to provide essential basic services to the Vergenoeg residents. To rectify the illegal undertaking whereby indigenous vegetation was cleared on a property of approximately 20 hectares, and whereby the clearing was within 100m of a drainage line which feeds the neighbouring pan, without obtaining an Environmental Authorisation, the municipality has lodged a rectification application that entails them to formalize the area and enable them to provide basic services. The Layout Plan for the formalization is attached hereto as **Appendix 3.1E.** The erven composition is 398 residential units, 1 business site, 2 community facilities and 2 open public spaces.

3.2. ACTIVITY DESCRIPTION

The activity that was commenced without obtaining an Environmental Authorisation was the change of land use from agricultural to an informal land used and that entailed clearance of an area of approximately 20 hectares of indigenous vegetation so that informal housing structures, inadequate sanitation facilities and internal roads, which are in poor condition could be built for the Vergenoeg residents to occupy the informal settlement. The clearance vegetation was done within 100m of the drainage line, which flows into the pan located approximately 140m of the proposed site. 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 comment, e.g. grading of internal roads, construction of houses with foundations, excavations for laying of sewer and water pipelines, etc.. However, that could only be done when an Environmental Authorisation has been obtained from DESTEA, the area could then be formalized. Therefore, an Impact Assessment should be undertaken to obtain an Environmental Authorisation for the rectification and continuation to formally change the land use from agricultural use to residential use.

3.3. 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 southwest from Bothaville and 160 km North of Bloemfontein. Locality Map of Monyakeng area showing the formalized area in relation to the Vergenoeg Informal Settlement, which needs to be formalized is attached hereto as **Appendix 3.3**.

3.4. SITE DESCRIPTION

Monyakeng is located to the North eastern side of Wesselsbron and is accessible from the R505 road. The Vergenoeg Informal Settlement is north of Monyakeng and in the vicinity is the Vergenoeg Cemetery, a waterbody, livestock enclosures, another portion of informal settlement, which is excluded from the layout and the formalized area.

The Google Satellite Imagery showing the proposed site in relation to Monyakeng and Provincial Roads in the vicinity is attached here as **Appendix 3.4**.

PHOTOGRAPHIC HISTORY

Photographs indicating the general situation and environment of the site and its surroundings are attached hereto as **Appendix 3.4.1.**

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. *Table 1* below outlines the sections, which are applicable to the proposed development that have been quoted from these acts:



TABLE 1: LEGISLATION RELEVANT TO THE PROPOSED DEVELOPMENT

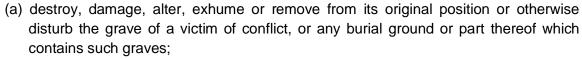
LEGISLATION	APPLICABLE SECTION
Constitution of the Republic of South Africa Act (Act No. 108 of 1996)	It states that:
	Everyone has the right –
	To an environment that is not harmful to their health and well-being; and
	To have the environment protected, for the benefit of present and future generations, 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 provide 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. socioeconomic 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.	
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:	
	 i. 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; andiv. pollution of the environment and harm to health are prevented.	
National Environmental Management: Air Quality Act (Act 39 of 2004)	The National Environmental Management: Air Quality Act reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically	



DRAFT S24G EIR sustainable development while promoting justifiable economic and social development and it aims at protecting the environment by providing reasonable measure for the protection and enhancement of the quality of air in the republic, the preventing air pollution and ecological degradation and securing ecologically sustainable development while promoting justifiable economic and social. It generally gives effect to section 24(b) of the constitution in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and well-being of people. 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 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; Section 36 subsection 3 states that no person may, without a permit issued by SAHRA or a provincial heritage resources authority—



- (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



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	excavation equipment, or any equipment which assists in the detection or recovery of metals	
	metals	
Conservation of Agricultural Resources Act (Act	It relates to:	
43 of 1983) and CARA Regulations of 1984	 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.	
	 Control measures for combating declared weeds and invader plants. 	
Occupational Health and Safety Act (Act 85 of	of It provides for the safety and health of persons at work and in connection with the use of	
1993)	plant and machinery. It further provides for the protection of people other than people at	
,	work from hazards arising out of or in connection with the activities from people at work.	
Water Services Act (Act No. 108 of 1997)	Its main objectives are 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 of1998) as amended	DESTEA	Environmental Authorisation	In progress
National Water Act (No. 36 of 1998)	Department of Water and Sanitation ("DWS")	Water Use License	Application to be submitted and condition to the EA
National Heritage Resources Act ('NHRA") (No 25 of 1999)	South African Heritage Resources Agency ("SAHRA") Free State Heritage Resources Agency (FSHRA")	Comment	18 th July 2019

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.

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.

5.1.4. SURFACE WATER

Two significantly sized pans were identified in the vicinity of the proposed site with the nearest one being within 140m and being fed by a drainage line, which is located within 100m. The nearest pan located east of the proposed site flows from south in a northerly direction past the proposed site, towards the pan. The flow regime has not been affected by the establishment of the informal settlement. The vegetation type of the pans forms part of the Highveld Salt Pans. The second pan is located further from the proposed site and it won't be directly affected by the development. The pans are viewed to as being of relatively high conservational significance for habitat preservation and ecological functionality persistence in support of the surrounding ecosystem, broader vegetation type Ecological Support Area (ESA 2) as well as ecological services and functionality. The edges of the pan constitute dwarf karroid shrubland with very little, if any grass remaining. The proposed area still forms part of the broader surface water catchment and drainage towards this second pan. The findings and mitigation measures to abate the impacts associated with the development to ensure ongoing functionality of the waterbodies are contained in the Ecological Report compiled by EcoFocus Ecological Specialist Services., which is attached hereto as Appendix 6.1.

5.1.5. LAND USE

The site, on which the illegal activity, *i.e.* establishment of an informal settlement, has taken place, it has been transformed from an undeveloped and vacant land to a built-up area although currently the top structures, e.g. houses are sub-standard, proper ones will be built once the formalization is completed and then it will be a formalized residential use. Therefore, the land use will be compatible with the adjacent Monyakeng area. In the vicinity of the proposed site, there are livestock enclosures and the neighbouring undeveloped area is used for grazing purposes, another informal settlement, that is not included in the layout. Illegal dumping sites have been established in some of the areas within the informal settlement as the area is currently not serviced for waste collection.



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 proposed site is categorized as an Ecological Support Area 2. From an ecological assessment that was undertaken in the winter season, it was observed the area has been significantly transformed by the existing informal settlement. 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 ecologist also indicated that the loss and transformation of natural habitat biota and ecosystem functionality within the proposed site is deemed irreversible, therefore it won't be feasible to restore the vegetation type to its ecosystem functionality with any means of ecological restoration. The Ecological Assessment Report is attached hereto as Appendix 6.1 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 indicated that a walk over study could be done during the flowering period of underground bulbous plants, if deemed necessary by DESTEA.

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, birdlife 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.

SITE-SPECIFIC FAUNA

During the site inspection no faunal activity as there is no ecologically sensitive terrestrial habitat remains within the proposed site and except for the pans there are no features to support sensitive biodiversity.



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, single or scattered concentrations of stone tools in the proposed site. No Iron Age sites, features or cultural material that were identified. A formal cemetery and an informal older graveyard (\$27°48'31.40" E26°22'19.10") are situated outside the proposed site. Therefore, from a Cultural Heritage, the proposed formalization should be allowed to take place as planned. 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, although HIV/Aids can also be another factor for the decrease. NLM has the highest dependency ratio of 66.1% in the district, which is higher in females and this is because of possible 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 cannot be emphasised more as unemployment 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 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, e.g. Free State Provincial Growth and Development Strategy and national, e.g. National Development Programme. The alignment is very important when reviewing the Municipality's 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 to 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.

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 Vergenoeg 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". 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 the existing informal settlements, so that they are able to provide essential basic services that the community of Vergenoeg 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. As a result, the municipality, opted to formalize the informal settlement so that they are able to provide basic services as it would be a formal settlement.

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

TABLE 3: APPLICABLE DEVELOPMENT OBJECTIVES

DEVELOPMENT OBECTIVE	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.



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.

TABLE 4: IDP PRIORITIES

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	To ensure effective urban planning that will					
Settlement	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.					

The municipality is expected to respond to the development imperatives identified from 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. Given the above, it is evident that the proposed formalization of Vergenoeg Informal Settlement, does meet the development objectives of various plans, strategies, etc.

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, distribution of the background information document, on-site notice, posters placed at prominent places, and advertising in the local newspaper, Vista Newspaper. The process was divided into two phases, whereby 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 was the review of the draft EIR, whereby the hard copies were sent to identified and registered I&APs for 30 days review (included in the 40 days notification period) so that they are provided with the key findings of the S24G application process and to provide another opportunity to give input that could be considered by DESTEA 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 4, Councillor Ngece 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*.

Notification sent to the Councillor of Ward 4, Councillor Ngece

Tel: 051 430 1041/2 Fax:(086) 239 9133

Email: info@nsvt.co.za website: www.nsvt.co.za P.O Box 42452 Heuwelsig 9332



Ref. No.: NSVT S24G-V-0329 Date: 2019-06-13

Nala Local Municipality Ward 4 Wesselsbron 9680

Attention: Councillor Ngece

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)-VERGENOEG 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 Development, Environment, Tourism and Environmental Affairs is considering:

- 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 1 and 3 of 2014 (as amended) published under of Government Notice R983 (R327) and R985 (R324) of 07 April 2014 for:
 - □ Name of Project: S24G Vergenoeg Township Establishment, Wesselsbron
 - Project Description as listed in the EIA regulations of 2014 (as amended):

<u>Listing Notice 1 Activity 27</u>: The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for — (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

<u>Listing Notice 3-Activity 12</u>: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan (iv) within 100 metres from the edge of a watercourse or wetland.

Location: North of Monyakeng, Wesselsbron in Ward 4



Co-ordinates:

l	Latitude (S):			Longitude (E):		
	27°	48'	57.99"	26°	22'	15.03"

- Date of Commencement of the Listed Activity: 2001
- DESTEA Application Reference Number: 24G/27,12/19/03

Queries regarding this matter must be referred to:

- NSVT Consultants
- □ Lorato Tigedi Pr. Sci. Nat.
- 051 430 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 (with reasons) 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 also be sent for review.

Objections and comments must be copied to:

DESTEA Foloji Mathibe

Tel. No.:051-400 4829

Email: mathibea@destea.qov.za

Hope you find the above in order.

Regards,

Lorato Tigedi Pr. Sci. Nat.

Environmental Assessment Practitioner

FIGURE 1: NOTIFICATION SENT TO THE COUNCILLOR OF WARD 4



The proof of delivery of notification to the ward councillor.

From	NSVT Consultants
Contact Person Internal	Lorato Tigedi 051 430 1042
Reference Number	NSVT-S24G-V-0329
RE	S24G Vergenoeg 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)
То	Councillor Ngece Ward 4
Contact Person	Councillor Ngece
Date Posted	13-06-2019.
Means of Postage	HOW DERIVERS
Signature (Recipient)	Al.
Name (Recipient)	MUSOTHA LEETO
Date Received	12-06-2019.
	CONSULTANTS
	NSUT

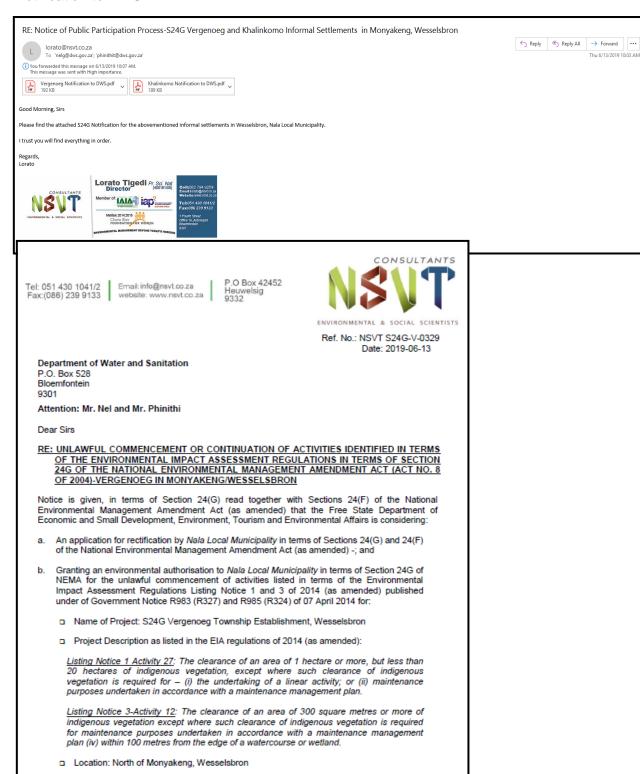
FIGURE 2: PROOF OF DELIVERY OF THE NOTIFICATION-WARD 4 COUNCILLOR



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.





Co-ordinates:

Latitude (S):			Longitude (E):		
27°	48'	57.99"	26°	22'	15.03"

- Date of Commencement of the Listed Activity: 2001
- DESTEA Application Reference Number: 24G/27,12/19/03

Queries regarding this matter must be referred to:

- NSVT Consultants
- □ Lorato Tigedi Pr. Sci. Nat.
- 051 430 1041/2 (t) 0862399133 (f) , <u>lorato@nsvt.co.za</u> (e), P.O. Box 42452, Heuwelsig, 9332 (p)

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The draft Environmental Impact Report will also be sent for review.

Objections and comments must be copied to:

DESTEA Foloji Mathibe Tel. No.:051-400 4829

Email: mathibea@destea.gov.za

Hope you find the above in order.

Regards,

Lorato Tigedi Pr. Sci. Nat.

Environmental Assessment Practitioner

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



Notification to Free State Heritage Resources Authority



Tel: 051 430 1041/2 Fax:(086) 239 9133

Email:info@nsvt.co.za website: www.nsvt.co.za P.O Box 42452 Heuwelsig 9332



Ref. No.: NSVT S24G-V-0329 Date: 2019-06-13

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 TERMS
OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION
24G OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8
OF 2004)-VERGENOEG 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 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 1 and 3 of 2014 (as amended) published under of Government Notice R983 (R327) and R985 (R324) of 07 April 2014 for:
 - Name of Project: S24G Vergenoeg Township Establishment, Wesselsbron
 - Project Description as listed in the EIA regulations of 2014 (as amended):

<u>Listing Notice 1 Activity 27</u>: The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for — (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

Listing Notice 3-Activity 12: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan (iv) within 100 metres from the edge of a watercourse or wetland.

Location: North of Monyakeng, Wesselsbron



Co-ordinates:

Latitude (S):		Longitude (E):			
27°	48'	57.99"	26°	22'	15.03"

- Date of Commencement of the Listed Activity: 2001
- DESTEA Application Reference Number: 24G/27,12/19/03

Queries regarding this matter must be referred to:

- NSVT Consultants
- □ Lorato Tigedi Pr. Sci. Nat.
- 051 430 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 (with reasons) 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 also be sent for review.

Objections and comments must be copied to:

DESTEA Foloji Mathibe

Tel. No.:051-400 4829

Email: mathibea@destea.qov.za

Hope you find the above in order.

Regards,

Lorato Tigedi Pr. Sci. Nat.

Environmental Assessment Practitioner

FIGURE 4: NOTIFICATION SENT TO FREE STATE HERITAGE RESOURCES AUTHORITY



7.5. 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 5* below.

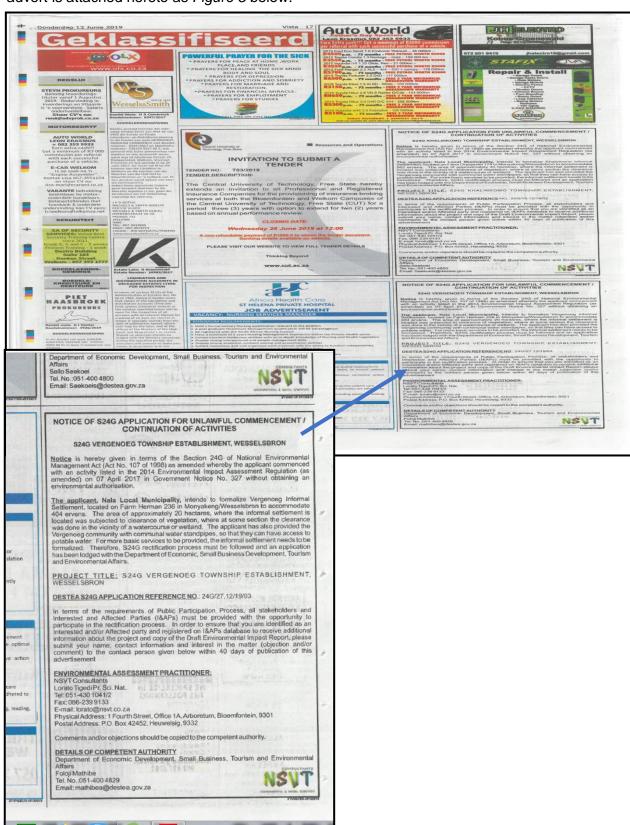


FIGURE 5: ADVERTISEMENT PLACED IN VISTA NEWSPAPER



7.6. 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: \$27° 48′ 53.9″ and \$26° 22′ 16.5″



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



7.7. 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, 4* and *5* 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 MONYAKENG LIBRARY



Poster placed at the Police Station in Monyakeng.



PHOTO 5: POSTER PLACED AT MONYAKENG POLICE STATION



7.8. 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 6* below.

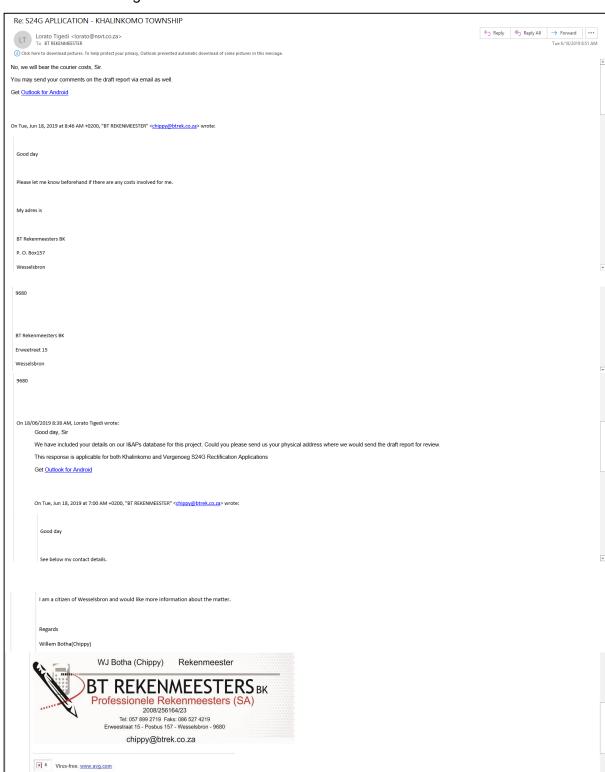


FIGURE 6: I&AP REGISTERED FROM THE NOTIFICATION PHASE



7.9. REVIEW OF THE DRAFT EIR

The draft report was sent to registered and identified I&APs, the records for submission are shown in *Figure 7* to *10* below and comments were received from DWS and SAHRA as shown in *Figure 11* and *12*, but none were received from Mr. Willem Botha. No objections were received for the proposed formalization of the Vergenoeg Informal Settlement.

Record of submission of the draft report to DWS and DESTEA.

		DELIVERY	0.00	AFLEWERINGSBOEK J.D	. 413
Date Datum	Time Tyd	Addressed to Geadresseer aan		Remarks Received by Opmerkings Ontvang deur	
17/0र्ग् २००१		DESTEA		Section 24 G Application noming	<u>;</u>
17/05/2019		DESTEA		Section 246 Application above up	
04/04/19		DESTEA-Follyi Mathibe		14 G Dragt STR Dallall	
04/07/19		DWS-George Nel		ONG Draft ER Dinth	

FIGURE 7: PROOF OF SUBMISSION TO DWS AND DESTEA



Record of submission of the draft report to SAHRA

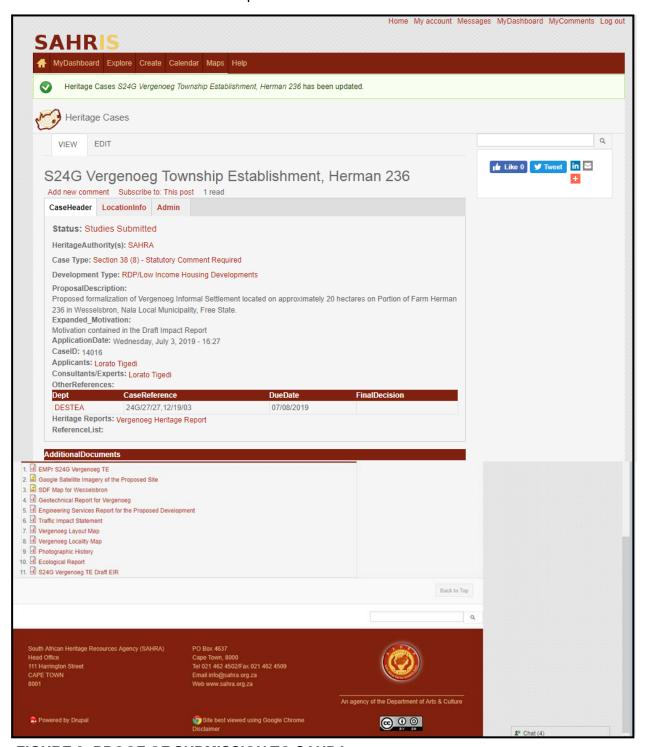


FIGURE 8: PROOF OF SUBMISSION TO SAHRA



Proof of submission to the registered I&AP, Willem Botha.



FIGURE 9: PROOF OF SUBMISSION TO THE REGISTERED I&AP

Mr. Botha, then notified us via an email that he has received the report as shown in *Figure 10* below.

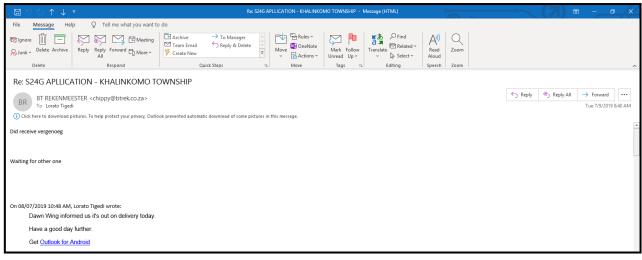


FIGURE 10: ACKNOWLEDGEMENT OF REPORT BY THE REGISTERED I&AP



Comments obtained from DWS.



Enquiries: G. Nel

Telephone: 051 405 9000 Reference: 16/2/7/C253/D1

NSVT Consultants PO Box 42452 HEUWELSIG 9332

Attention: Lorato Tigedi

S24G VERGENOEG TOWNSHIP ESTABLISHMENT APPLICANT: NALA LOCAL MUNICIPALITY .WESSELSBRON, FREE STATE PROVINCE

The draft Environmental Impact Report and layout plans are here by referred to:

The Department has no objection towards the above mentioned development in Wesselsbron

However, the applicant should ensure the following:

- No development should take place within the 1:100 year floodline. Section 144 of
 the National Water Act, 1998, Act no.36 of 1998 must be brought to your
 attention: It reads as follows: For the purpose of ensuring that all persons who
 might be affected have access to information regarding the potential flood
 hazards, no person may establish a residence unless the layout plan shows, in a
 form acceptable to the local authority concerned, lines indicating the
 maximum level likely to be reached by floodwaters on average once every 100
 years.
- It is preferred that the sewage be connected to the municipalities reticulation system however there must be sufficient capacity and resources for the operation and maintenance of the treatment works.
- If it is not possible to connect to the municipalities reticulation system then there
 must be sufficient support, capacity and resources for the operation and
 maintenance of the septic tanks.
- Wastewater SPECIAL LIMIT values applicable to discharge of wastewater into a water resource, General Authorization No. 399, 2004 must be adhered to.
- NO sewage works may be built within the 1:100 year flood line.
- Detailed plans for the sewage treatment works at the development must be submitted this Department



- Storm water management plans must be implemented.
- An existing lawful water use is defined, in terms of Section 32 of the NWA, as a water use;

Which has taken place at any time during a period of two years immediately before the date of commencement of the NWA. [1 October 1998 for groundwater uses and 1 October 1999 for surface water uses.]

Which was authorised by or under any law which was in force immediately before the date of commencement of the NWA.

Which is a stream flow reduction activity contemplated in Section 36(1) of the NWA.

Which is a controlled activity contemplated in section 37(1) of the NWA.

Which has been declared an existing lawful water use under Section 33 of the NWA.

 Comply with all the conditions as stated in the National Water Act (Act 36 of 1998).

To apply for authorisation and registration of water uses the responsible official can be contacted at the following address:

Deputy Director: Water Use Attention: Mr. V Blair Private Bag 528, Bloemfontein, 9300

9300

Telephone: 051 405 9000

For any clarity, please do not hesitate to contact this Department

Vernon Blair

Director: Institutional Oversight (Acting)

DATE: 06/08/2019

Regards

FIGURE 11: COMMENTS OBTAINED FROM DWS



Comments received from SAHRA.

S24G Vergenoeg Township Establishment, Herman 236

Our Ref:



an agency of the

T: +27 21 462 4502 | F: +27 21 462 4509 | E: inlo@sahra.org.za South African Heritage Resources Agency | 111 Harrington Street | Cape Town PO. Box 4637 | Cape Town | 8001 www.sahra.org.za

Enquiries: Ragna Redeistorii Tel: +27 (0)21 202 8651 Email: rredeistorii@sahra.org.za

CaseID: 14016

Date: Thursday July 18, 2019

Page No: 1

Final Comment

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Mrs Lorato Tigedi NSVT Consultants P.O. Box 45425 Heuwelsig Bloemfontein 9332

Proposed formalization of Vergenoeg Informal Settlement located on approximately 20 hectares on Portion of Farm Herman 236 in Wesselsbron, Nala Local Municipality, Free State.

The proposed project entails the establishment of a township located on a portion of the farm Herman 236, Wesselsbron/Monyakeng, Free State Province. NSVT Consultants as independent EAP was appointed by Hoxana Consulting Engineers on behalf of Nala Local Municipality to conduct the Environmental Impact Assessment Report for rectification process in terms of Section 24G of NEMA, 1998 for commencing with an activity without obtaining an Environmental Authorisation. The municipality has deemed it necessary to formalise Vergenoeg Informal Settlement so that they can provide basic services to the area.

A draft Section 24G Environmental Impact Report and a Heritage Impact Assessment were submitted with the application.

PELSER, A. 2019. PHASE 1 HIA REPORT FOR THE PROPOSED VERGENOEG TOWNSHIP DEVELOPMENT LOCATED ON A PORTION OF HERMAN 236 IN WESSELSBRON/MONYAKENG, FREE STATE PROVINCE.

The field survey did not reveal any sites, features or material of cultural heritage (archaeological and/or historical) origin or significance. The proposed area has previously been impacted by both agricultural activities and formal & informal residential settlement.

The large (formal) cemetery close to the township area, would require appropriate fencing a qualified archaeologist/ heritage practitioner is to recommend appropriate fencing mitigation as part of a detailed mitigation plan in a Phase 2 Mitigation Plan to be submitted to SAHRA, this mitigation report is to include detailed site survey, as per the minimum standards of Heritage reports (2007) as well as historical research.



\$24G Vergenoeg Township Establishment, Herman 236

Our Ref:



an agency of the Department of Arts and Cultur

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za

South African Heritage Resources Agency | 111 Harrington Street | Cape Town PO. Box 4637 | Cape Town | 8001 www.sahra.org.za

Enquiries: Ragna Redeistorii Tel: +27 (0)21 202 8651 Email: rredeistorii@sahra.org.za

CaseID: 14016

Date: Thursday July 18, 2019

Page No: 2

The informal older burial ground situated outside of the study area looks to be older than 100 years, with the large cemetery being envisaged to be formalized (fenced-in) as part of the proposed township development. Protection of the smaller informal graveyard such as fencing-in needs to be considered in case of future expansions in residential settlement in the area and SAHRA wishes to recommend that the graves identified in this informal cemetery be relocated to be included in the formal cemetery.

Final comment

The SAHRA Archaeology, palaeontology and Meteorites (APM) Unit reviewed and accepts the HIA and recommendations therein. The area is situated in an area of moderate to high palaeontological sensitivity; however, as the area has been extensively disturbed previously and the area appears to be underlain by mainly Quaternary sediments of low palaeontological sensitivity the SAHRA APM Unit exempts the develop from undertaking a desktop Palaeontological Impact Assessment. A Fossil Finds Procedure must be included in the EMP for implementation.

The following conditions must be adhered to and must be incorporated into the Environmental Management Programme (EMPr) for implementation:

- Should any objects of archaeological or palaeontological remains be found during construction activities, work must immediately stop in that area and the Environmental Control Officer (ECO) must be informed.
- The ECO must inform the South African Heritage Recourse Agency (SAHRA) and contact an archaeologist and/or palaeontologist, depending on the nature of the find, to assess the importance and rescue them if necessary (with the relevant SAHRA permit). No work may be resumed in this area without the permission from the ECO and SAHRA.
- If the newly discovered heritage resources is considered significant a Phase 2 assessment may be required.A permit from the responsible heritage authority will be needed.
- 4. Should any human remains be uncovered during development, the activities must be immediately following SAHRA's 'What to do when graves are uncovered', section 3, must be followed as far as possible.



S24G Vergenoeg Township Establishment, Herman 236

Our Ref:



an agency of the

T: +27 21 462 4502 | F: +27 21 462 4509 | E: inlo@sahra.org.za South African Heritage Resources Agency | 111 Harrington Street | Cape Town PO. Box 4637 | Cape Town | 8001 www.sahra.org.za

Enquirles: Ragna Redeistorff Tel: +27 (0)21 202 8651 Email: rredeistorff@sahra.org.za

CaseID: 14016

Date: Thursday July 18, 2019

5. A Chance Finds Procedures must be developed for the project to ensure that standard protocols and steps are followed should any heritage and/or fossil resources be uncovered during all phases of the project. These procedures should outline the steps and reporting structure to be followed in the instance that heritage resources are found. This must be included in the Environmental Awareness Plan.

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The final EIA and appendices must be submitted to SAHRA upon submission to DEA. Should the project be granted Environmental Authorisation, SAHRA must be notified and all relevant documents submitted to the case file.

The SAHRA Burial Grounds and Graves (BGG) Unit also reviewed the HIA and comments that both the formal and informal cemetery must be fenced-in with a designated buffer zone, including a gate for access.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Ragna Redelstorff Heritage Officer

South African Heritage Resources Agency

ADMIN:

Direct URL to case: http://www.sahra.org.za/node/525301 (DESTEA, Ref: 24G/27/27,12/19/03)

Terms & Conditions:



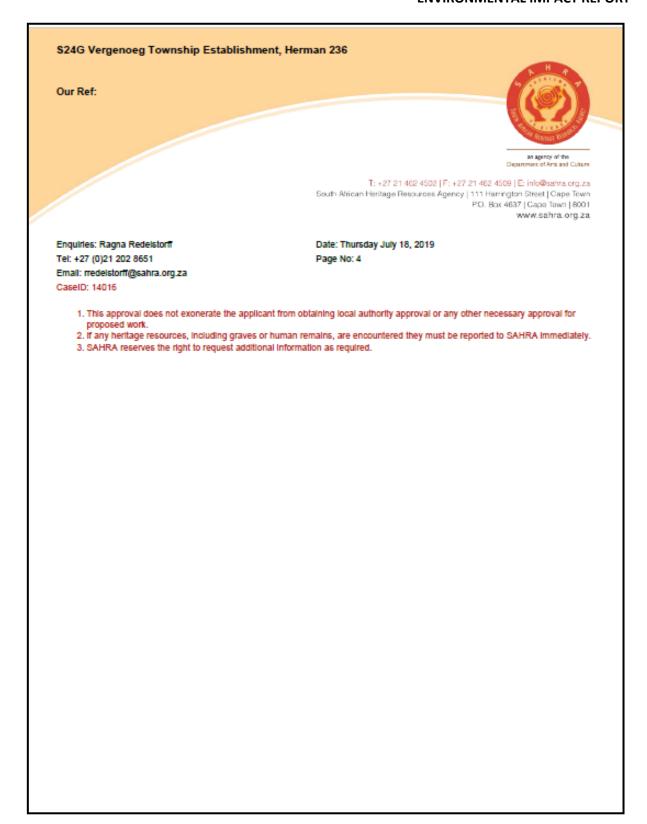


FIGURE 12: COMMENTS OBTAINED FROM SAHRA



8. NEED FOR THE PROPOSED ACTIVITY

The community of Vergenoeg has illegally occupied an unplanned area in Ward 4 in Monyakeng, 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 very 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 will be considered.

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, but the latter wasn't considered because the municipality does not have serviced stands that they can relocate the community to and there are no sensitive areas that should be avoided or vacant and undeveloped land available to accommodate the proposed development. Therefore, there will be no other alternatives considered for the said development. 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 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.



9.1. NO-GO ALTERNATIVE (DO NOTHING ALTERNATIVE)

Should the development not take place, the community of Vergenoeg 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 Vergenoeg 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 Vergenoeg 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.

10. ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

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

TABLE 5: IDENTIFIED ENVIRONMENTAL IMPACTS

ENVIRONMENTAL ASPECTS	POSSIBLE IMPACTS	SIGNIFICANCE RATING OF IMPACTS AFTER MITIGATION (LOW, MEDIUM, MEDIUM-HIGH, HIGH, VERY HIGH):	
	Impacts during pre-construction	phase	
	Employment opportunities for the local		
Socio-Economic	community during construction phase	Low (positive impact)	
	due to the current unemployment rate		
	(economic impact)		
Availability of	Insufficient bulk services capacity to		
Bulk Services	accommodate the proposed	Low	
Dank Gorvioco	development		
	Impacts during construction ph	ase	
	Loss of topsoil during the construction		
	period from movement of construction		
Soil Erosion	vehicles and operation from	Low	
	earthmoving activities, which could		
	result in soil erosion		
	Alteration of the topography due to		
Stormwater	earthmoving activities could result in	Low	
Management	increased surface water run-off and	LOW	
	flooding		
	Dust generation during the		
Air Quality	construction phase and its impact on	Insignificant	
All Quality	the health of the surrounding land	Insignificant	
	users and the workforce.		



Noise Generation	Excessive generation of noise that could be nuisance to the surrounding landusers and owners.	Insignificant
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.	Insignificant
Cultural, Historical and Archaeological and Palaeontological aspects	Potential damage or destruction of undiscovered heritage sites during construction.	Low
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.	Medium
Wetland Destruction	Destruction of wetland (pan and drainage line) in the vicinity of the site	Low

11. SIGNIFICANCE ASSESSMENT METHODOLOGY

The impacts were evaluated by applying the methodology as described below. The impact is defined, and the significance is rated from Low to High as indicated in the table below with an explanation of the impact magnitude and a guide that reflects the extent of the proposed mitigation measures deemed necessary. Impact rating matrix used in the assessment of the impacts identified above is explained in *Table 6* below.

TABLE 6: IMPACT RATING MATRIX

NATURE:								
The character of the impact								
EXTENT	DURATION	PROBABILITY	MAGNITU	DE				
Area	Time Frame	Likelihood	Intensity	of	impact	to		
			destroy	or	alter	the		
environment.								
SIGNIFICANCE	SIGNIFICANCE:							
Implication of th	e impact both with or w	ithout mitigation						
TYPE:								
Description as t	o whether the impact is	negative or positive or	neutral.					
MITIGATION:								
Possible impact management, minimization and mitigation of the identified impacts.								
DISCUSSION								



NATURE OF **I**MPACT

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

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 (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	Site/Local	Regional	National	International
	(F)	(S-L)	(R)	(N)	(I)
Rating	1	2	3	4	5

DURATION OF IMPACT

Duration measures the timeframe of the impact in relation to the lifetime of the Project activities under application. It gives an assessment of whether the impact will disappear with mitigation immediately (0-1) 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

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%)	(100%)
Rating	1	2	3	4	5

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 (M)	High (H)	Very High (VH)
	(1)	(-)	(141)	(''')	(***)
Rating	2	4	6	8	10



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:

Extent		Duration		Intensity		Probabili	ty	Significance	Rating
Footprint	1	Temporary	1	Insignificant	2	Probable	1	Insignificant	0-19
Site	2	Short	2	Low	4	Possible	2	Low	20-39
Regional	3	Medium	3	Medium	6	Likely	3	Medium	40-59
National	4	Long	4	High	8	Highly Likely	4	High	60-89
Inter- national	5	Permanent	5	Very High	10	Definite	5	Very High	90 <

The following is a guide to interpreting the final scores of impacts:

INSIGNIFICANT: the impact should cause no real damage to the environment, except where it has the opportunity to contribute to cumulative impacts.

LOW: 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 environmental management programme (EMPr) and managed appropriately.

MEDIUM: 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 shown to outweigh the impact.

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 real mitigation 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.

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.

Status of Impact

Status of impact describes whether the impact is positive (beneficial) on the affected environment (social) or negative (detrimental) or neutral.



12. ASSESSMENT OF IDENTIFIED ENVIRONMENTAL ISSUES

The environmental issues identified in Section 11 above are assessed in *Table 7* below in terms of the outlined Significance Assessment Methodology in Section 12 above.

TABLE 7: ASSESSMENT OF IDENTIFIED ENVIRONMENTAL IMPACTS

ASPECT: SOCIO-ECONOMIC

NATURE OF IMPACT: Employment opportunities for the local community during construction phase due to the current unemployment rate (economic impact)

	Without Mitigation	With Mitigation
Extent	Regional (3)	Local (2)
Duration	Short term (2)	Short term (2)
Magnitude	Low (4)	Medium (6)
Probability	Probable (1)	Highly Likely (4)
Significance	Insignificant (9)	Medium (40)
Status (positive or negative)	Positive	Positive
Reversibility	N/A	N/A
Irreplaceable loss of resources?	N/A	N/A
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 4 and, local sub-contractors and SMMEs should be utilized to a greater extent and recruitment should consider gender equality in mind.
- Work force should include youth, women and disabled. Expanded Public Works Programme targets should be met.
- Labour intensive construction methods should be adopted.
- 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 doesn't result in any delays due to unresolved issues, e.g. recruitment of local labourers.
- Appropriate training should be provided.



Cumulative impacts:

None expected

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 4 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 aren't 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.

	Without Mitigation	With Mitigation	
Extent	Local (2)	Local (2)	
Duration	Permanent (5)	Short Term (2)	
Magnitude	Very High (10)	Low (8)	
Probability	Definite (5)	Probable (2)	
Significance	High (85)	Low (24)	
Status	Negative	Positive	
Reversibility	Reversible over long time	Quickly Reversible	
Irreplaceable loss of resources?	Yes	No	
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.
- ♦ 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.

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 necessary bilk and link 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: SOIL EROSION

NATURE OF IMPACT: Loss of topsoil during the construction period from earthmoving activities, movement of construction vehicles and operation of machinery, which could result in soil erosion.

	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Permanent (5)	Short term (2)
Magnitude	Very High (10)	Medium (6)
Probability	Definite (5)	Possible (2)
Significance	High (85)	Low (20)
Status	Negative	Negative
Reversibility	Reversible over long time	Reversible over time
Irreplaceable loss of resources?	Yes	Yes
Can impacts be mitigated or augmented?	Yes	



Mitigation:

- ♦ 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.
- ♦ Cleared and grubbed topsoil must be stockpiled.
- ♦ No topsoil stockpiling should be allowed within the protective buffer zones of watercourses.
- ♦ Soil conservation measures such as berms, gabions and mats should be used on site to help reduce erosion.
- ♦ 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.
- Areas that were compacted during construction should be ripped to allow re-establishment of natural vegetation.
- ♦ All disturbed areas should be rehabilitated immediately when construction ceases to abate channel and gulley formation.

Cumulative impacts:

None

Residual Impacts:

Limited

Discussion:

There is no vegetation cover on site, meaning the soil is exposed thus could be prone to erosion caused by water or wind. Therefore, it is important that construction activities are confined to the development footprint. There should be no vehicular movement of construction activities as they could to adversely affect the surrounding environment. Should the outlined mitigation measures not be implemented, then the risk of soil erosion would be increased.

ASPECT: STORMWATER MANAGEMENT

NATURE OF IMPACT: Alteration of the topography due to earthmoving activities could result in increased surface water run-off and flooding.

	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Permanent (5)	Short term (2)
Magnitude	Very High (10)	Medium (6)
Probability	Definite (5)	Possible (2)
Significance	High (85)	Low (20)



Status	Negative	Negative
Reversibility	Reversible over long time	Reversible over time
Irreplaceable loss of resources?	Yes	Yes
Can impacts be mitigated or augmented?	Yes	

Mitigation:

- ♦ Stormwater Management Plan should be compiled as part of the detailed design to avoid stormwater concentration and implemented.
- ♦ Construction activities should be limited to the development footprint.
- ♦ There should be sediment control so that the adjacent drainage lines and pans aren't affected.
- ♦ The natural drainage pattern of the area should not be altered.
- On completion of construction activities, topography should blend with that of the surrounding area.

Cumulative impacts:

There could be cumulative impacts if mitigation measures aren't 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: 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.

	Without Mitigation	With Mitigation
Extent	Local (2)	Footprint (1)
Duration	Permanent (5)	Temporary (1)
Magnitude	Very High (10)	Low (4)
Probability	Definite (5)	Probable (1)



Significance	High (85)	Insignificant (6)
Status	Negative	Negative
Reversibility	Immediately reversible	Immediately reversible
Irreplaceable loss of resources?	No	No
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.
- ♦ Restrict movement of machinery to avoid unnecessary fugitive dust emissions.
- ♦ Construction vehicles and machinery should be serviced regularly to minimize the exhaust fumes.
- 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.
- ♦ Areas surrounding the construction footprint must be adequately rehabilitated as soon as practically possible after construction in order to prevent significant dust emissions from occurring.

Cumulative impacts:

None expected

Residual Impacts:

N/A

Discussion

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.



ASPECT: NOISE POLLUTION

NATURE OF IMPACT: Excessive generation of noise that could be nuisance to the surrounding landusers, owners and workforce.

	<u> </u>		
	Without Mitigation	With Mitigation	
Extent	Local (2)	Footprint (1)	
Duration	Short term (2)	Temporary (1)	
Magnitude	Very High (10)	Low (4)	
Probability	Definite (5)	Probable (6)	
Significance	High (70)	Insignificant (6)	
Status	Negative	Negative	
Reversibility	Immediately reversible	Immediately Reversible	
Irreplaceable loss of resources?	No	No	
Can impacts be mitigated or augmented?	Yes		

Mitigation:

- ♦ All vehicles and equipment used on site must conform to the noise regulations standard.
- ♦ Construction should be limited to normal working days and office hours from 08h00 to 17h00. Should there be any deviation, then the surrounding community should be informed.
- Ensure that employees and staff conduct themselves in an acceptable manner while on site, both during work hours and after hours.
- ♦ Limit working hours of noisy equipment to daylight hours
- ♦ Fit silencers to construction equipment and vehicles.
- All operators of heavy construction equipment must wear earplugs or mufflers.
- Construction vehicles and machinery must be kept in good working conditions.

Cumulative impacts:

None expected

Residual Impacts:

Minimal noise is still expected from the vehicles and the equipment to be used on site during construction activities.

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.

	Without Mitigation	With Mitigation
Extent	Local (2)	Local (2)
Duration	Short term (2)	Temporary (1)
Magnitude	Very High (10)	Medium (4)
Probability	Definite (5)	Possible (2)
Significance	Medium (70)	Insignificant (14)
Status	Negative	Negative
Reversibility	Quickly Reversible	Quickly Reversible
Irreplaceable loss of resources?	Yes	No
Can impacts be mitigated or augmented?	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 impacts:

None expected.

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.

ASPECT: PALAEONTOLOGICAL, CULTUTAL, HISTORICAL OR ARCHAEOLOGICAL ARTEFACTS NATURE OF IMPACT: Potential damage or destruction to undiscovered heritage sites in the area.		
	Without Mitigation	With Mitigation
Extent	National (5)	Regional/Provincial (5)
Duration	Permanent (5)	Short term (2)
Magnitude	Very High (10)	Low (4)
Probability	Definite (5)	Probable (1)
Significance	Very High (100)	Low (11)
Status	Negative	Negative
Reversibility	No	Reversible over time
Irreplaceable loss of resources?	Yes	No
Can impacts be mitigated or augmented?	Yes	

Mitigation:

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.

Cumulative impacts:

None

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

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.

	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)
Significance	Very High (95)	Medium (30)
Status	Negative	Negative
Reversibility	Irreversible	Irreversible
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated-or augmented?	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.

ASPECT: WETLAND		
NATURE: Destruction of the drainage line that flows towards the pan		
TYPE OF IMPACT: Negative		
EXTENT	Regional (3)	Local (2)
DURATION	Long Term (4)	Short Term (2)
MAGNITUDE	Very High (10)	Medium (6)
PROBABILITY	Highly Likely (4)	Possible (2)
SIGNIFICANCE	High (68)	Low (20)
STATUS		
Reversibility		
Irreplaceable loss of resources?	N/A	N/A
Can impacts be mitigated-or augmented?	Yes	
MITIGATION		

MITIGATION:

To reduce the impact on wetland soils and hydrology during trenching, the following needs to be considered:

- 1. Storage of machinery & surplus materials to be only allowed outside 32m from the drainage line.
- 2. Limit the movement of the construction vehicles, which is to remain within designated access roads.
- 3. Comprehensive Pan Health Assessment and adequate bio-monitoring assessment must be conducted prior to commencement of the construction phase.
- 4. Water samples of the pan must be collected directly downstream of the proposed site prior to commencement of the construction



phase.		
Cumulative impacts:		
None expected		
Residual Impacts:		
Limited		

Discussion:

The natural drainage line should not be altered as it will affect the neighbouring pan, therefore, it is important that the freedom of surface water drainage post-development is able to flow towards the pan. No storing of soils onto the drainage area. Adequate site abatement must be implemented in order to abate the formation of erosion through modification of the surface water hydrology. No movement of construction vehicles must be allowed on the drainage lines.



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; 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's 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 formalization of an informal settlement is not considered to be an emergency as it happened over the years.

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 Vergenoeg Informal Settlement could be formalized from an unregulated settlement to a planned and regulated township. with the incorporation of the recommendations below:

Civil Services: New water bulk line if the existing one doesn't have enough pressure; therefore, this should be determined prior to commencement of construction. New gravity sewer links should be included in the scope of work for the formalization. Stormwater Management Plan should be compiled prior to commencement of the construction activities.

Geotechnical: Section classified as Site Class B-It needs to be reinstated in terms of recognized engineering standards followed by a foundation, whilst the rest of the site doesn't require reinstatement.

Traffic: Intersections at the access points must be upgraded with stop/yield sign, 125th Street should be rehabilitated or upgraded to a paved road and stormwater drains should be installed on road site to ensure an all-weather access.

Heritage: Fencing off the existing and old informal cemeteries for protection from vandalism.

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. 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.

Public participation process: Although no objections were received for the proposed formalization of the informal settlement, the following was recommended:



- Floodline determination should be done so that the floodlines are included in the layout indicating the maximum level likely to be reached by floodwaters on average once every 100 years.
- 2. Wastewater Special Limit values applicable to the discharge of wastewater into a water resource, General Authorisation No, 399, 2004 must be adhered.
- 3. Detailed plans for the sewage treatment works must be submitted to DWS.
- 4. Stormwater Management Plans must be implemented.
- 5. Comply with the conditions as stated in the National Water Act (Act 36 of 1998).
- 6. A Chance Finds Procedures must be developed for the project.
- 7. The formal and informal cemetery must be fenced-in with a designated buffer zone, including a gate for access.

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, sportsground, 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. A Water Use License Application is required as the development area is within 500m of a watercourse.

Given the above, it is highly recommended that the authorization be granted for the proposed continuation of the change in land use to residential (formalization) of Vergenoeg informal settlement.



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;
- (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;
- (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.

R	
Signature of the Environmental Assessment Practitioner:	
NSVT Consultants	
Name of company:	
2019-08-07	
Date:	



APPENDIX 3.1A

SPATIAL DEVELOPMENT FRAMEWORK MAP



APPENDIX 3.1B

GEOTECHNICAL REPORT



APPENDIX 3.1C CIVIL SERVICES REPORT



APPENDIX 3.1D

TRAFFIC ASSESSMENT REPORT



APPENDIX 3.1E

LAYOUT PLAN FOR THE PROPOSED DEVELOPMENT



APPENDIX 3.3

LOCALITY MAP OF THE PROPOSED SITE



APPENDIX 3.4

GOOGLE SATELLITE IMAGERY OF THE PROPOSED SITE



APPENDIX 3.4.1

PHOTOGRAPHIC HISTORY



APPENDIX 6.1

ECOLOGICAL ASSESSMENT REPORT



APPENDIX 6.3

HERITAGE ASSESSMENT REPORT



APPENDIX 15

DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

