BLUE BERRIES NAMIBIA (PTY) LTD

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT REPORT

THE REMAINDER (CREATION OF STREETS), AS PART OF THE SUBDIVISION PLAN OF THE FARM DIVUNDU TOWNLANDS NO. 1362 INTO PORTIONS 8 TO 15

DIVUNDU VILLAGE, KAVANGO EAST REGION

APRIL 2023

I.N.K Enviro Consultants

Namibia Berries

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CONSULTANT'S EXPERTISE

I.N.K Enviro Consultants cc is the independent firm of environmental consultants that has been appointed by Blue Berries Namibia (Pty) Ltd to conduct the ESIA process.

Immanuel N. Katali, the Environmental Assessment Practitioner holds a B. Arts (Honours) Geography, Environmental Studies and Sociology and has over seven years of relevant experience in conducting/managing Environmental and Social Impact Assessments (ESIAs), and Environmental Compliance/Monitoring Audits in Namibia. Immanuel is certified as an Environmental Assessment Practitioner under the Environmental Assessment Professionals Association of Namibia (EAPAN).

DECLARATION OF INDEPENDENCE AND DISCLAIMER

I.N.K Enviro Consultants cc herewith declare that this report represents an independent assessment of the proposed Blueberries subdivision activities, on the request of Blue Berries Namibia (Pty) Ltd.

The Environmental Consultant has prepared this report based on an agreed scope of work and acts in all professional manner as an Independent Environmental Consultant to Blue Berries Namibia (Pty) Ltd and exercises all reasonable skill and care in the provision of its environmental professional services in a manner consistent with the level of expertise exercised by members of the environmental profession.

The information, statements and commentary contained in this report have been prepared by I.N.K Enviro Consultants cc from information provided by Blue Berries Namibia (Pty) Ltd. I.N.K Enviro Consultants cc does not express an opinion as to the accuracy or completeness of the information provided, the assumptions made by the party that provided the information or any conclusions reached. I.N.K Enviro Consultants cc has based this report on information received or obtained, on the basis that such information is accurate and, where it is represented to I.N.K Enviro Consultants cc as such, complete.

I.N.K Enviro Consultants cc is not responsible and will not be held liable to any other person or organization for any loss or damage suffered by any other person or organization arising from matters dealt with or conclusions expressed in this report.

This report is the sole property of Blue Berries Namibia (Pty) Ltd and must not be altered or added to without the prior written consent of Blue Berries Namibia (Pty) Ltd.

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LIST OF ACRONYMS, ABBREVIATIONS AND UNITS

Acronyms / Abbreviations / Units	Definition
BID	Background Information Document
DEA	Directorate of Environmental Affairs
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental management Act
ESMP	Environmental and Social Management Plan
ha	Hectares
IRR	Issues and Response Report
I&APs	Interested and Affected Party
m^3/h	Cubic Metres per Hour
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MHSS	Ministry of Health and Social Services
MLSW	Ministry of Labour and Social Welfare
NDP	National Development Plan
PPP	Public Participation Process

1 INTRODUCTION

1.1 Background to the Proposed Subdivision Activities

Blueberries Namibia (Pty) Ltd (hereinafter referred to as “Namibia Berries”) intends to apply for an Environmental Clearance Certificate (ECC) for the remainder (creation of streets), as part of the subdivision plan of the Farm Divundu Townlands no. 1362 into portions 8 to 15, with the aim of developing irrigation activities on a 253.9 hectares (ha) piece of land. The proposed project is located in Divundu Village, Kavango East Region, Namibia.

Two separate Environmental Clearance Certificate (ECC) Applications have been submitted to the Ministry of Environment, Forestry and Tourism (MEFT) as per the following:

- The Proposed Blueberries Irrigation Activities.
- The Proposed Remainder (Creation of Streets), as Part of the Subdivision Plan of The Farm Divundu Townlands No. 1362 into Portions 8 to 15.

This report focuses on the proposed remainder (creation of a street) for the proposed blueberries irrigation project and has been compiled as part of the EIA process that is being undertaken. The ESIA process is conducted on the request of the Ministry of Urban and Rural Development (MURD), as one of the requirements, prior to the approval of the subdivision plans for the proposed irrigation activities.

Prior to the commencement of the project, an environmental clearance is required based on an approved Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP). The report describes the Environmental and Social Impact Assessment (ESIA) process being followed and provides an overview of the affected environment. It includes an assessment of the environmental impacts that the proposed activities are likely to have and sets out the consultants’ recommendations. The proposed management and mitigation measures related to the proposed subdivision activities are documented in an Environmental and Social Management Plan (ESMP).

I.N.K Enviro Consultants cc (I.N.K), an independent firm of environmental consultants, has been appointed to undertake the Environmental and Social Impact Assessment process for this project. For more details on the ESIA process that was followed, please refer to Section 1.3.

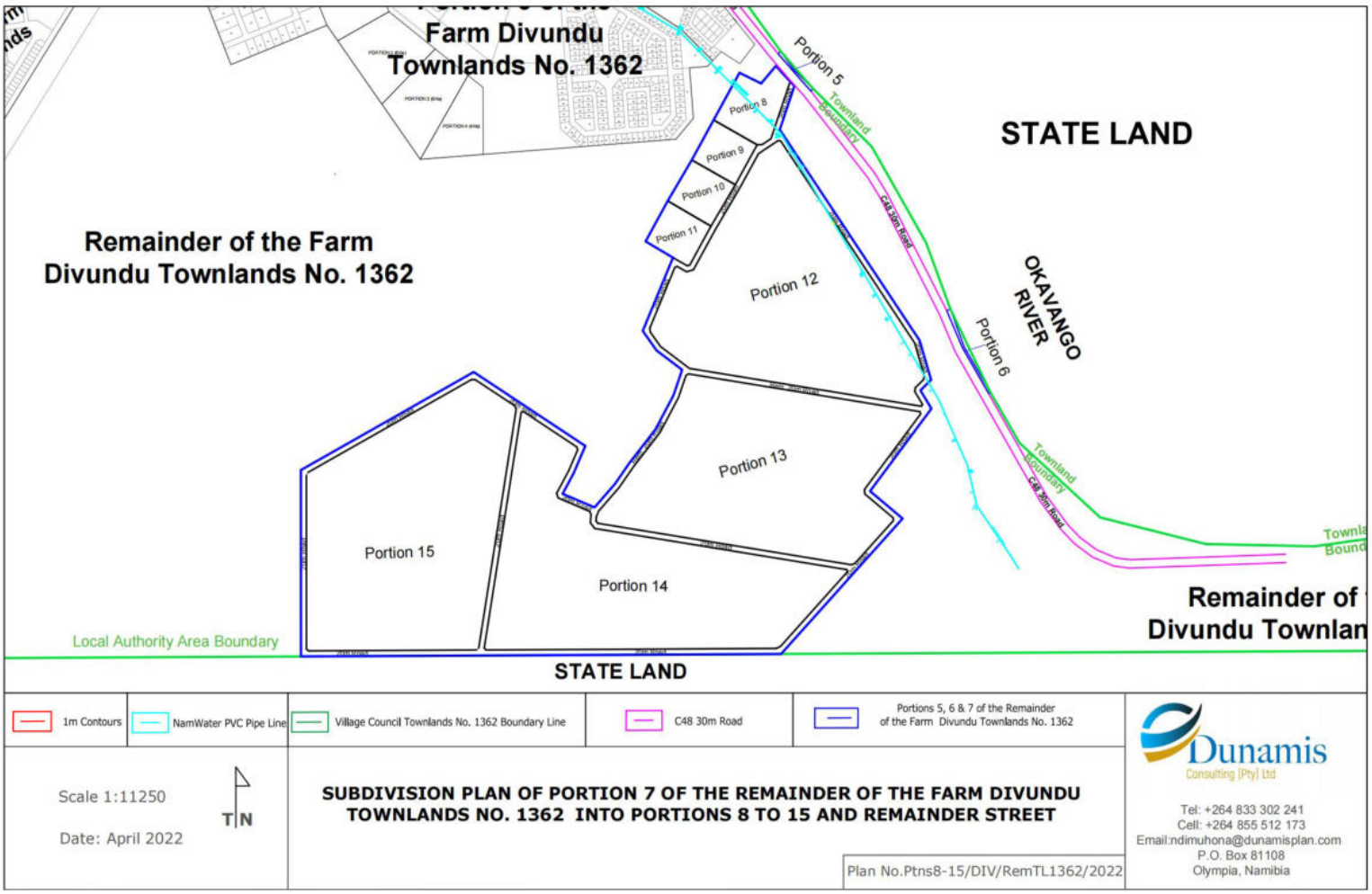

Figure 1: Subdivision and Remainder Layout Plan

1.2 Project Motivation (Need and Desirability)

In order for Namibia Berries to develop on the proposed land and for the overall realisation of the proposed irrigation project, there are land registration procedures and processes required by the Divundu Village Council and the Ministry of Urban and Rural Development (MURD), which has the role to coordinate and spearhead the decentralization process, to promote rural development, establish an effective, decentralised regional and local government system, housing and physical planning. This line ministry has a number of requirements, which includes amongst all others, the submission of the ECC for the subdivision and remainder (creation of streets), prior to approval.

The overall irrigation project has the potential to create significant socio-economic benefits through employment creation, economic contributions and food security. Namibia's "Green

Scheme Policy" (MAWF, 2008) states "[t]he mandate of the Ministry of Agriculture, Water and Forestry is the promotion, development, management and utilisation of agricultural, water and forestry resources. It is, therefore, the objective of the Government to ensure agriculture productivity and food security in line with Vision 2030 strategy." The proposed Namibia berries project falls under the ambit of Namibia's "Green Scheme". The benefits include employment opportunities, skills and development training and capital injection into businesses within Okavango East.

1.3 Introduction to the Environmental and Social Impact Assessment Process

Environmental and Social Impact Assessments are regulated by the Ministry of Environment, Forestry and Tourism (MEFT) in terms of the Environmental Management Act, 7 of 2007. This Act was gazetted on 27 December 2007 (Government Gazette No. 3966) and enacted on 6 January 2012. The Environmental and Social Impact Assessment Regulations: Environmental Management Act, 2007 (Government Gazette No. 4878) were promulgated on 6 January 2012.

1.3.1 ESIA Process

The ESIA process that has been followed is summarized in the table below:

Table 1: ESIA Process

ESIA OBJECTIVES	CORRESPONDING ACTIVITIES
Project initiation, Screening Phase	
◆ Understanding of the environmental and social baseline relating to the proposed subdivision activities. ◆ Notify the decision-making authority of the proposed subdivision activities. ◆ Initiate the Environmental and Social Impact Assessment process. ◆ Site visits and identify environmental issues. ◆ Identify key stakeholders and early identification of other I&APs.	◆ Project Inception and initiation meetings to discuss the Project and ESIA process requirements. ◆ Liaise with various specialists ◆ Draft ESIA Schedule. ◆ Initiate baseline studies. ◆ Submit Application for authorisations and a Background Information Document (BID) to the authorities. ◆ Register the Project and Applications for environmental clearances with MEFT (DEA) on its online portal. ◆ Early identification of environmental aspects and potential impacts associated with the proposed Project.
Scoping Phase	

ESIA OBJECTIVES	CORRESPONDING ACTIVITIES
◆ Notify other regulatory authorities and I&APs of the proposed subdivision activities (via newspaper advertisements, BID, emails, site notices and telephone calls). ◆ Conduct Key Stakeholder and Public meetings. ◆ Carry out specialist investigations and establish baseline environmental conditions. ◆ Determine the terms of reference for additional assessment work. ◆ Compile Scoping Report and Issues and Response Report (IRR) ◆ Distribute the Scoping Report for review and comment by relevant authorities and I&APs. ◆ Assessment of potential issues, consider comments received and compile the ESIA final report. ◆ Submit the final reports to relevant Ministries for their review and final decision on the Applications for environmental clearance.	◆ Develop Public Participatory Process (PPP) Programme. ◆ Develop I&AP database. ◆ Prepare BID and distribute to I&APs. ◆ Notify government authorities and IAPs of the Project and ESIA process (telephone calls, e-mails, BID newspaper advertisements and site notices). ◆ IAP registration and comments. ◆ Meetings with authorities and IAPs. ◆ Compilation of ESEIA Report and ESMPs. ◆ Distribute ESEIA Report and ESMPs to all I&APs for review and comments. ◆ Assess potential issues, obtain comments and update the Scoping Report and ESMPs. ◆ Submit final documents to MEFT for review and decision-making.

Within this framework, the required components of the ESIA report are discussed in more detail as part of the ESIA Methodology in Section 8.

ESIAs are influenced by national legislation and a range of guidelines. The legislation applicable to this project and the ESIA process is discussed further in Section 3 below.

1.3.2 ESIA Team

I.N.K Enviro Consultants cc is the independent firm of consultants that has been appointed by Namibia Berries to undertake the Environmental and Social Impact Assessment and related processes. Immanuel N. Katali, the Environmental Assessment Practitioner holds a B. Arts (Honours) Geography, Environmental Studies and Sociology and has over seven years of relevant experience in conducting/managing Environmental and Social Impact Assessments

(ESIAs), and Environmental Compliance/Monitoring Audits in Namibia. Immanuel is certified as an Environmental Assessment Practitioner under the Environmental Assessment Professionals Association of Namibia (EAPAN).

1.3.3 Applicable Listed Activities

The EIA Regulations promulgated in terms of the Environmental Management Act, identify certain activities which could have a substantially detrimental effect on the environment. These listed activities require environmental clearance from MEFT prior to commencing. The following activities identified in the regulations apply to the proposed project:

Table 2: Listed activities triggered by the proposed Project.

Listed activity
10.2 The route determination of roads and design of associated physical infrastructure where -
a) It is a public road.

2 SCOPING MEFTHODOLOGY

2.1 Information collection

I.N.K used various information sources to identify and assess the issues associated with the proposed road construction activities as per the following:

- Site visit by I.N.K.
- Consultation with Namibia Berries Project Technical Team.
- Consultation with MEFT via online application system.
- Consultation with I&APs.
- Atlas of Namibia.
- Google Earth.
- Internet sources.

2.2 Scoping

The main purpose of scoping is to indicate which environmental aspects relating to the proposed project might have an impact on the environment, to assess them and to provide management and mitigation measures to avoid or minimise these impacts.

Table 4 outlines the Scoping requirements as set out in Section 8 of the Environmental and Social Impact Assessment Regulations that were promulgated in January 2012 in terms of the Environmental Management Act, 7 of 2007.

Table 3: Scoping requirements stipulated in the ESIA regulations.

Requirements for a Scoping Report in terms of the February 2012 regulations	Reference in report
(a) the curriculum vitae of the EAP who prepared the report;	Appendix A
(b) a description of the proposed activity;	Section 4
(c) a description of the site on which the activity is to be undertaken and the location of the activity on the site;	Section 4
(d) a description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed listed activity;	Sections 6
(e) an identification of laws and guidelines that have been considered in the preparation of the Scoping Report;	Section 3
(f) details of the public consultation process conducted in terms of regulation 7(1) in connection with the application, including - (i) the steps that were taken to notify potentially interested and affected parties of the proposed application; (ii) proof that notice boards, advertisements and notices notifying potentially	Sections 2.3, 2.4, 2.5 and Appendix B

interested and affected parties of the proposed application have been displayed, placed or given; (iii) a list of all persons, organisations and organs of state that were registered in terms of regulation 22 as interested and affected parties in relation to the application; and (iv) a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues;	
(g) a description of the need and desirability of the proposed listed activity and any identified alternatives to the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives have on the environment and on the community that may be affected by the activity;	Sections 1.2
(h) a description and assessment of the significance of any significant effects, including cumulative effects, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the proposed listed activity;	Sections 7 and 8
(i) terms of reference for the detailed assessment; and	Section 7 & 8
(j) a management plan, which includes - (i) information on any proposed management, mitigation, protection or remedial measures to be undertaken to address the effects on the environment that have been identified including objectives in respect of the rehabilitation of the environment and closure; (ii) as far as is reasonably practicable, measures to rehabilitate the environment affected by the undertaking of the activity or specified activity to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development; and (iii) a description of the manner in which the applicant intends to modify, remedy, control or stop any action, activity or process that causes pollution or environmental degradation and remedy the cause of pollution or degradation and migration of pollutants.	Section 9

2.3 Public Participation Process

The public participation process for the proposed subdivision activities is conducted to ensure that all persons and/or organisations that may be affected by, or interested in the proposed project, were informed of the project and could register their views and concerns. By consulting with relevant authorities and I&APs, the range of environmental issues to be considered in this Report has been given specific context and focus.

Included below is a summary of the I&APs consulted, the process that was followed and the issues that were identified.

2.4 I&APs for the Proposed Subdivision Activities

The table below provides a broad list of persons, group of persons or organisations that were informed about the project and were requested to register as I&APs should they be interested and/or affected.

Table 4: Namibia Berries' Project Stakeholders

IAP Grouping	Organisation
Government Ministries	◆ Ministry of Environment, Forestry and Tourism (MEFT). ◆ Ministry of Agriculture, Water and Land Reform.
Local Authorities	◆ Divundu Village Council
Nearest Communities	◆ Residents in Divundu Village
Media	Newspaper adverts (Friday, 10 and Friday, 17 March 2023): Die Republikein and The Namibian Sun.
Other interested and affected parties	Any other people with an interest in the proposed project or who may be affected by the proposed project.

2.5 Steps in the consultation process

Table 6 sets out the steps that were followed as part of the consultation process:

Table 5: Consultation Process with I&APs and Authorities

TASK	DESCRIPTION
Notification - regulatory authorities and IAPs	
Notification to MEFT	I.N.K submitted the Application Form (online system) as a form of project registration and notification to MEFT.
I&AP identification	A stakeholder database was developed for the proposed subdivision and ESIA process. Additional I&APs will be updated during the ESIA process as required.
Distribution of background information document (BID), flyers and stakeholders meeting invitation letters	BIDs were made available to all I&APs on the project's stakeholder database. Copies of the BID were available on request to I.N.K. Stakeholder meeting invitation were given out to the residents of Divundu Village. The purpose of the BID was to inform I&APs and authorities about the proposed subdivision activities, the ESIA process, possible environmental impacts and means of providing input into the ESIA process. Attached to the BID was a registration and response form, which provided I&APs with an opportunity to submit their names, contact details and comments on the project. A copy of the BID is attached in Appendix B.
Newspaper Advertisements	Block advertisements were placed as follows: ◆ Die Republikein (10 and 17 March 2023) ◆ The Namibian Sun (10 and 17 March 2023)

TASK	DESCRIPTION
Notification - regulatory authorities and IAPs	
	Refer to Appendix B.
Scoping Meetings	Several consultations were made with I&APs. This included meetings and telephonic discussions. Meetings were held with key stakeholders as follows: ◆ Homesteads within the boundary of the site - Ndongo Village, Divundu on Friday, 24 March 2023. ◆ General public meeting - Ndongo Village, Divundu on Saturday, 25 March 2023 The due date to register as an I&AP and submit comments was 07 April 2023. However, the ESIA report was made available at the Village Council for additional commenting.
Comments and Responses	Minutes and Issues and Response of the meetings is attached in Appendix B.
MEFT review of ESIA Report and ESMP	A copy of the final Scoping Report, including authority and I&AP review comments, will be submitted to MEFT on completion of the public review process via the online application system.

2.6 General Assumptions and Limitations

The key assumptions and limitations of this ESIA Report are detailed below.

- It is assumed that the information provided by Blue Berries Namibia (Pty) Ltd, relating to the project activities is accurate and that the project will be implemented and operated as described.
- The latest Namibian Population Census was carried out in 2011 and there have been continuous rural – urban migration and changes in the economic environment. Therefore, to prevent misleading conclusions and outcomes as a result of this outdated data, the information available, where possible, has been assumed, through the comparative analysis of the socioeconomic context of the settlement in 2011 and the current baseline social and economic conditions of the settlement, such as evident town expansion, increase in local shops, new townships and investment in the town.

3 ENVIRONMENTAL LAWS AND POLICY

The Republic of Namibia has five tiers of law and several policies relevant to environmental assessment and protection, which includes:

- The Constitution
- Statutory law
- Common law
- Customary law
- International law

Key policies currently in force include:

- The EIA Policy (1995).
- Namibia's Environmental Assessment Policy for Sustainable Development and Environmental Conservation (1994).

As the main source of legislation, the Constitution of the Republic of Namibia (1990) makes provision for the creation and enforcement of applicable legislation. In this context and in accordance with its constitution, Namibia has passed numerous laws intended to protect the natural environment and mitigate against adverse environmental impacts.

3.1 Legislation Applicable to the Proposed Subdivision Activities

- **The Constitution of the Republic of Namibia as Amended:** Article 91 (c) provides for duty to guard against "the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia." Article 95(l) deals with the "maintenance of ecosystems, essential ecological processes and biological diversity" and sustainable use of the country's natural resources.
- **Environmental Management Act No. 7 of 2007 (EMA) and EIA Regulations GN 28, 29, and 30 of EMA (2012):** GN 29 Identifies and lists certain activities that cannot be undertaken without an environmental clearance certificate. GN 30 provides the regulations governing the environmental assessment (EA) process.
- **Local Authorities Act No. 23 of 1992:** The Local Authorities Act prescribes the manner in which a town or municipality should be managed by the Town or Municipal Council.

4 PROJECT DESCRIPTION

4.1 Proposed Rezoning Activities

Blueberries Namibia (Pty) Ltd (hereinafter referred to as “Namibia Berries”) intends to apply for an Environmental Clearance Certificate (ECC) for the remainder (creation of streets), as part of the subdivision plan of the Farm Divundu Townlands no. 1362 into portions 8 to 15, with the aim of developing irrigation activities on a 253.9 hectares (ha) piece of land.

4.2 Construction Activities (Road Construction for Remainder Portion)

The road construction activities for the remainder portion of the subdivision will take place during the establishment and preparation of the irrigation site. Therefore, it is expected that construction will involve the following activities:

- Appoint subcontractors, labourers, etc.
- Clearing and grubbing and other earth moving activities.
- Stockpiling topsoil and sub-soil.
- Foundation excavations.
- Setting up contractor’s lay-down areas.
- Delivery of materials – storage and handling of material such as sand, rock, gravel, etc.
- General building/construction activities including, amongst others: operation of construction vehicles and machinery etc.

4.2.1 Site Preparations for Infrastructure

Site preparation includes the demarcation of the footprint of the proposed development and the lay-down area to be located ±15 m for each of the proposed project component and infrastructure site, for the storage and partial assembly of the project material or equipment to be installed or constructed.

4.2.2 Waste Management during construction activities

Relatively small quantities of waste is anticipated to be generated during the construction of the proposed roads. Waste shall be transported to the nearest waste disposal site.

4.2.3 Rehabilitation of temporary construction sites and laydown area

The removal of all temporary road construction equipment will be undertaken at the end of construction activities. This will be done as per Environmental Management Plan recommendations.

5 PROJECT ALTERNATIVES

5.1 The “no project” option

With reference to section 1.2, in order for Namibia Berries to develop on the proposed land and for the overall realisation of the proposed irrigation project, there are land registration procedures and processes required by the Divundu Village Council and the Ministry of Urban and Rural Development (MURD), which has the role to coordinate and spearhead the decentralization process, to promote rural development, establish an effective, decentralised regional and local government system, housing and physical planning. This line ministry has a number of requirements, which includes amongst all others, the submission of the ECC for the subdivision and remainder (creation of streets), prior to approval.

The overall irrigation project has the potential to create significant socioeconomic benefits through employment creation, economic contributions and food security. Namibia’s “Green Scheme Policy” (MAWF, 2008) states “[t]he mandate of the Ministry of Agriculture, Water and Forestry is the promotion, development, management and utilisation of agricultural, water and forestry resources. It is, therefore, the objective of the Government to ensure agriculture productivity and food security in line with Vision 2030 strategy.” The proposed Namibia berries project falls under the ambit of Namibia’s “Green Scheme”. The benefits include employment opportunities, skills and development training and capital injection into businesses within Okavango East.

The no-go alternative is the baseline against which all alternatives are assessed. The no-go alternative would essentially entail maintaining the current situation, and the construction of the proposed roads will not take place.

The proponent will have to ensure that the identified mitigation measures and commitments to address the potential impacts will appropriately be implemented and adhered to.

Without the implementation and adherence of the commitments in the ESMP, the project will be a “fatal flaw”.

6 DESCRIPTION OF THE CURRENT ENVIRONMENT

This section was compiled utilising the following sources of information:

- Information shared by Blue Berries Namibia (Pty) Ltd.
- Visual observations during a site visit by I.N.K.
- Google Earth.
- Atlas of Namibia.
- Internet sources.

6.1 Climatic Conditions

6.1.1 Temperature

The Region is usually warm to hot with average maximum temperatures above 30°C for nine months of the year, and average minimums are below 10 °C during the coolest months June, July and August. Temperatures below freezing are occasionally recorded but are rare and are usually only experienced in low-lying valleys such as found along the Kavango River and drainage lines (Omurambas) (Stubenrauch et al., 2015).

From a local perspective, Divundu area has annual temperature of more than 22°C, minimum temperatures ranging between 4 and 6°C and maximum temperatures varying from 32 to 36°C. The average annual rainfall ranges between 500 to 600mm and humidity ranging between 10% and 20% (Mendelsohn et al., 2002).

6.1.2 Precipitation

Kavango East Region receives an annual average rainfall varies between 450 and 600 mm, with a clear increasing trend from south to north. Rains fall almost entirely in summer, with the months from May to September usually being dry, and the first early rains coming to the region in October and November. Highest rainfalls usually occur in January and February.

6.1.3 Topography

According to Mendelsohn et al., (2002), the landscape of Divundu and surroundings is characterized by the Kalahari sediments, hence Kalahari Sandveld. This landscape is found in much of the northern and eastern Namibia dominated by Savanna woodlands growing on sands deposited by wind over the last 70-63 million years ago. The landscape is particularly flat, although the sands have been moulded into dunes in some areas. Altitudes are highest in the central and western areas, from where the whole landscape slopes gently down to lower ground in the east and south.

6.2 Soil, Landscape and Geology

The Okavango Basin is part of the greater Kalahari Basin, which covers most of the northern and eastern parts of Namibia and extends across the Namibian border into Botswana and Angola. The bedrock underlying the basin filled with Kalahari Sequence deposits consisting of basal rocks of the Damara Sequence, followed by the Karoo Sequence sediments, overlain and intruded by volcanics of Karoo age. The unconsolidated to semi- consolidated clay, sand and gravel of the Kalahari Sequence fill the Okavango Sub-basin, which thickens from the northeast towards the northwest, from 0 to >400 m along the north-west trending basin axis (Bittner, 2002).

The geology of Divundu area is characterized by the Kalahari sands (Mendelsohn et al., 2002). The project site is underlain by the sands and calcrete of the Kalahari Group.

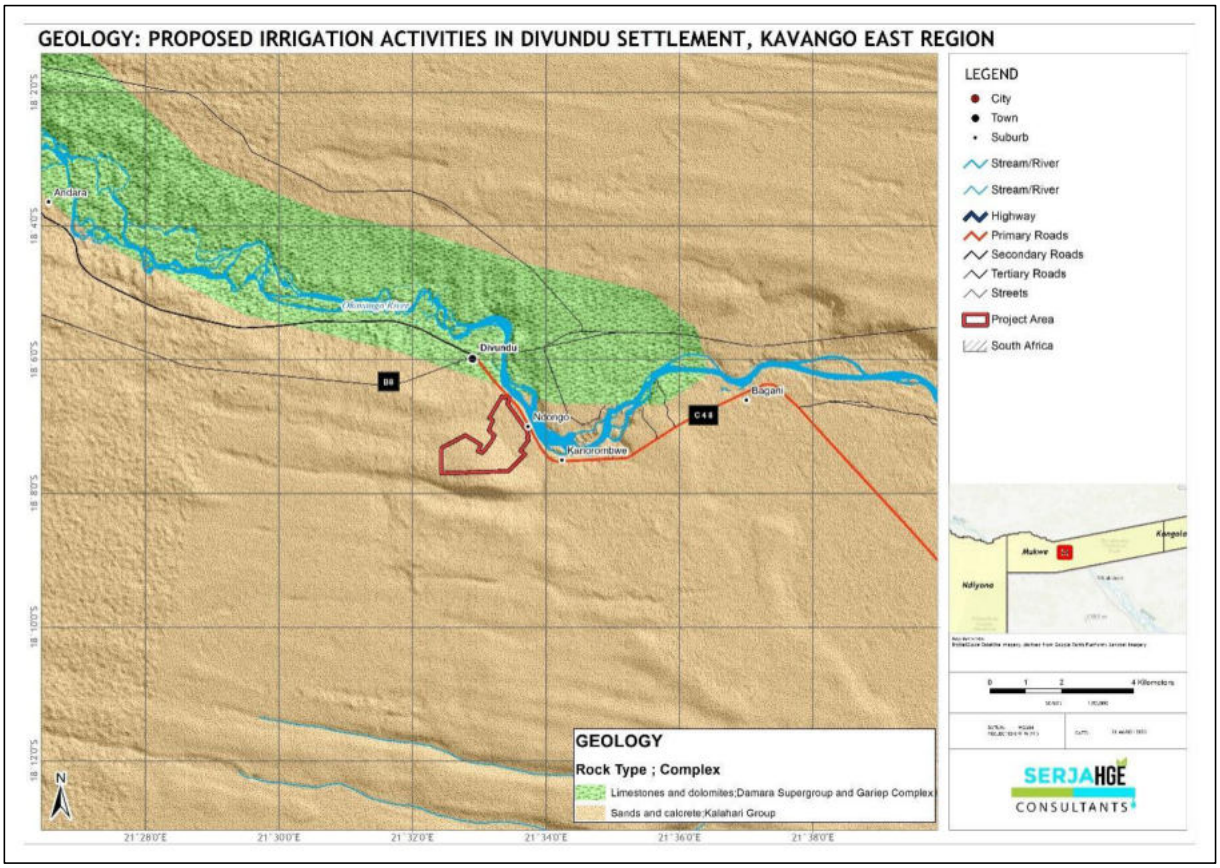

Figure 2: A typical landscape within the proposed project

The dominant soils on and around the project site area are ferralic arenosols. According to Mendelsohn et al (2002), ferralic are defined as soils with high contents of combined oxides of iron and aluminium. Arenosols are formed from wind-blown sand and usually extend to a depth of at least one meter, with sand generally making up more than 70% of the soil (Mendelsohn et. al, 2002).

6.3 Biodiversity

6.3.1 Vegetation - Trees and Shrub Diversity

The description of vegetation is an important requirement in ensuring sustainable management of plant resources. The settlement is dominated by Broadleaved Tree-and-Shrub Savanna. These plants produce leaves, roots, wood, fruit and seeds, and in so doing they provide various resources and services for people, animals and the environment. On the other hand, the area is very much an open grassland, with scattered shrub and thorn bushes. There are several fruit bearing trees, such as Jackals Berry, Monkey Orange, Baobab and Xemina Africana.

The settlement falls within the Forest Savanna and Woodland which extends from the north-eastern part of the Zambezi Region to the eastern part of Okavango East Region, covering the area of Divundu Village.

Table 6: Woody vegetation cover in the settlement

Species common name	Scientific name	Dominanc/cover	Protected/
Thorn tree	*Senegalia nigrescens*	Sparely distributed in the settlement	
Kiaat	*Pterocarpus angolensis*	Isolated	
Wild syringa	*Burkea africana*	Very few in the area	
Monkey oranges	*Strychnos cocculoides and pungens*	Sparely distributed	
Leadwood	*(Combretum species)*	Dominant trees	
Baobab trees	*andasonia Digitata*	About 5 in the area	Protected
Jackal Berry	*Diospyros mespiliformis*	Sparely distributed	Protected
Makalani	*hypheane petersiana*	Short and sparsely	Protected
silver terminalia	*Terminalia sericea*	Sparely distributed	

There are certain indigenous plants which are valuable to the community. Plants such as Makalani, Baobab and Jackal Berry, provide some nutritional value, and are usually recognised through local use, knowledge and cultural value. These are therefore classified as protected species. Below are some images of the tree species that are found in the area.

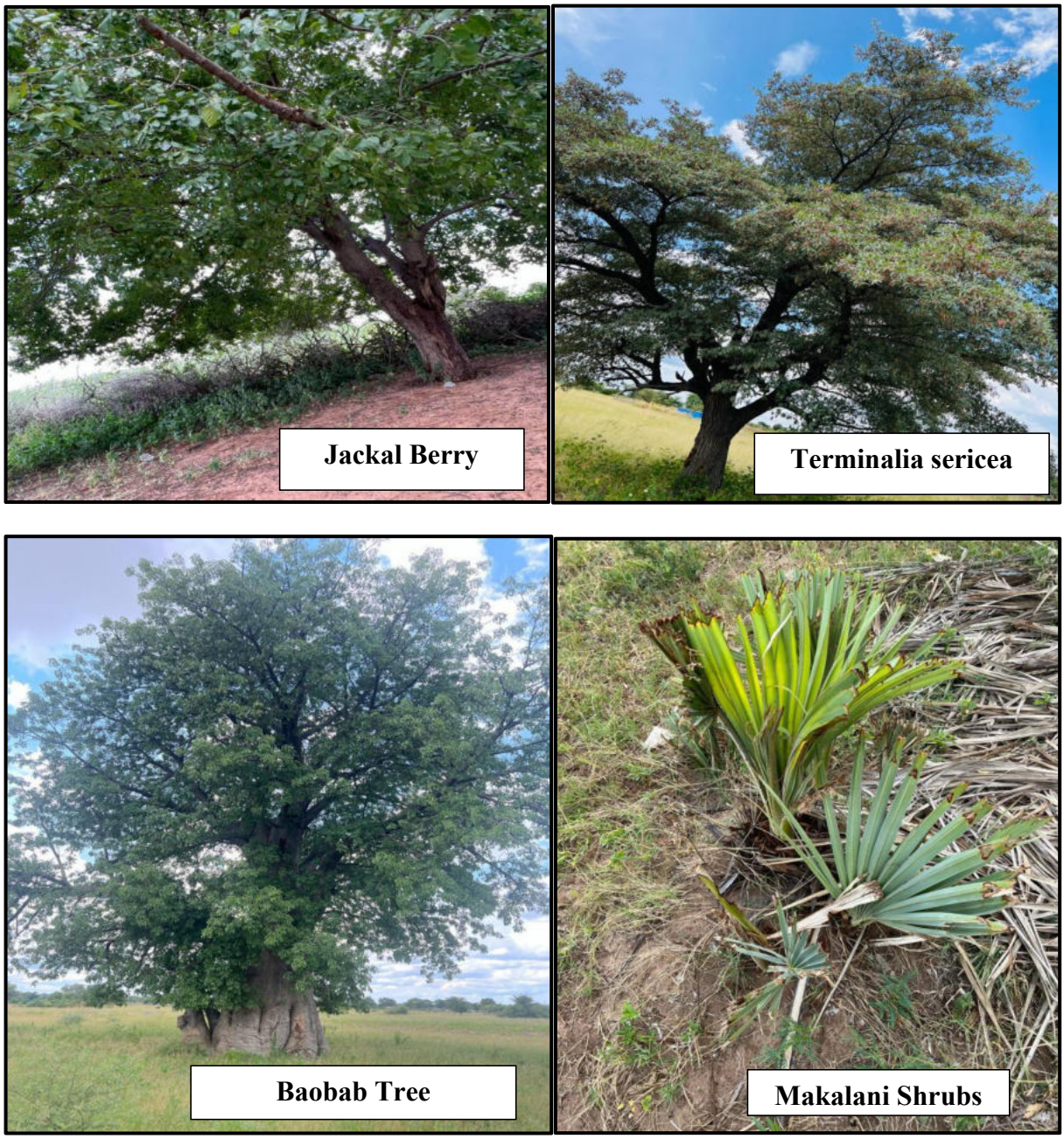

Figure 3: Trees and shrubs that occur and/or expected to occur within the proposed project vicinity.

The vegetation type varies from deciduous woodlands to shrubs. Together with other plant species they create a mixture of open woodland vegetation, thorn shrubs and other shrubs. The broadleaved woodlands are considered to be less sensitive and scarce (MET, 2013). Of the listed vegetation from the area, the Baobab trees, Jackal Berry trees and Makalani shrubs are considered protected. These plants bear fruits that are consumed by the local community for subsistence. Although not found in large numbers, they need to be considered for conservation. Otherwise, the biodiversity of the vegetation in the area and associated fringe woodlands are considered to be moderately sensitive and scarce (MET, 2013).

The area being classified as a communal area, a portion of the land is demarcated as fields in low-lying drainage areas, used for rainfed crop cultivation for subsistence livelihood.

6.3.1.1 Grasses and Forbs

The grass *Imperata cylindrica* dominates the settlement while a variety of palatable species grow in the areas too, such as *Schmidtia papppophoroides, Brachiaria nigropedata.* These grass species provide some of the best grazing resources in the area. The settlement is largely covered by grass, and the grass cover can be described as diverse, comprising a different suite of grass composition with scattered shrubs and forbs. Even with the presence of vegetation, the area is vastly an open space dominated by grasses, shrubs and forbs.

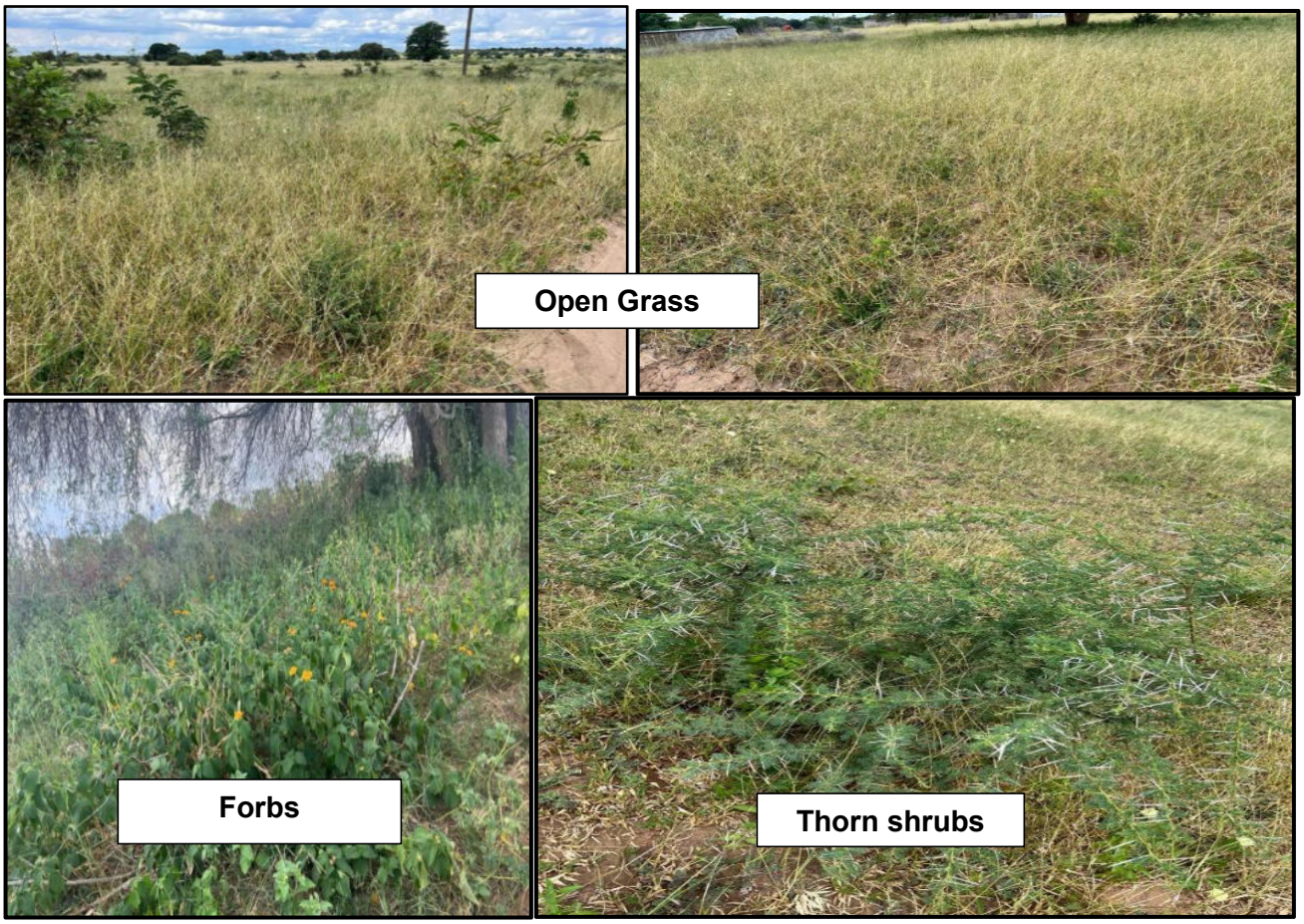

Figure 4: The open grass dominated space in the settlement with some forbs and shorter shrubs.

However, in some cases, mostly tall, coarse, sour perennial grasses are present in the settlement area. The area is further fringed by forbs and shrubs, as well as tall woody plants which dominate along the settlement margins.

In summary, the vegetation composition of the area is highly diverse, with some plants considered as protected species, because of their scarcity and their use as natural resources. The area is largely an open space with selected vegetation scattered around the edges.

6.3.2 Fauna

6.3.2.1 Mammal Diversity

Wildlife density appears to be very low, no doubt affected by the disturbance caused by human activities and the large proportion of converted habitat in the area. With the single exception of some mole-rat diggings, no signs were seen of the presence of any wildlife and definitely not of herbivores. Grasslands is the most likely to support the presence of savanna wildlife. The project area is in proximity to the Bwabwata National Park, where large concentrations of elephant and buffalo occur. The main predators include lion, leopard, cheetah and hyena.

Livestock such as cattle and goats can be widely found in the area due to subsistence farming. These animals can be observed during the day grazing on the vast grassland that the area offers.

6.3.2.2 Reptile Diversity

Although it is not the most diverse part of Namibia for reptiles ,the project area is still likely to support a relatively rich herpetofauna with about 63 species. Considering only species for which the habitats available on site are either highly or moderately suitable, this number drops to 53 species, which is still remarkably high for reptiles.

Because of the deep sandy substrate, the region supports a burrowing fauna belonging to four different families *(Typhlopidae, Leptotyphlopidae, Atractaspididae and Amphisbaenidae)*, but the snakes, geckos and lizards overall are poorly represented and there are only two lacertids (sand lizards), a taxon in which Namibia overall is particularly diverse, while black mamba snakes are found in the area.

6.3.2.3 Avian Diversity

The region is exceptionally rich in bird life. 430 species of birds recorded, include breeding pairs of the rare Wattled Crane; Slaty Egret, Stanley's Bustard, Rosy-throated Longclaw, Dickinson's Kestrel, Allen's Gallinule, Lesser Jacana, Black-winged and Red-winged Pratincoles, Long-toed, Lapwing, Luapula Cisticola, Coppery-tailed Coucal and Black Coucal.

6.4 Hydrogeology

According to the hydrogeological map of Namibia (Christelis and Struckmeier, 2011), the regional groundwater potential is moderate. Groundwater within the wider area of the Kavango Regions (Kavango East and West), is hosted in two distinct aquifer systems, Kalahari aquifers and fractured bedrock aquifers. These two aquifers are treated separately in this study as they have different characteristics. Kalahari aquifers hold water in intergranular pore spaces, whereas water in fractured aquifers is held in cracks and fractures in otherwise impermeable strata. Kalahari aquifers are common in the Kavango Regions (Christelis and Struckmeier, 2011).

The aquifers in the study area can be sub-divided into two main groups, namely the primary (porous) aquifers and secondary (fractured) aquifers. The primary aquifers consist mainly of argillaceous and arenitic unconsolidated to semi-consolidated sediments of the Kalahari Sequence, that occur throughout the two Kavango Regions. The secondary aquifers comprise fractured and weathered pre-Kalahari bedrock. The secondary aquifers are only important in areas where the Kalahari sediments are absent or thinly developed such as in the north-eastern and south-eastern parts of the Kavango Regions.

The Kalahari Sequence sediments constitute the most important aquifers in the region and the vast majority of boreholes drilled for rural and bulk water supply intersect the Kalahari aquifers. Boreholes drilled in close proximity to the Okavango River, intersecting paleo-channels, are often high yielding and most of the bulk water schemes are developed along the river.

Groundwater in the project site area is hosted in the porous Kalahari sediments (primary aquifers) with radial flow towards the north (to the Kavango River).

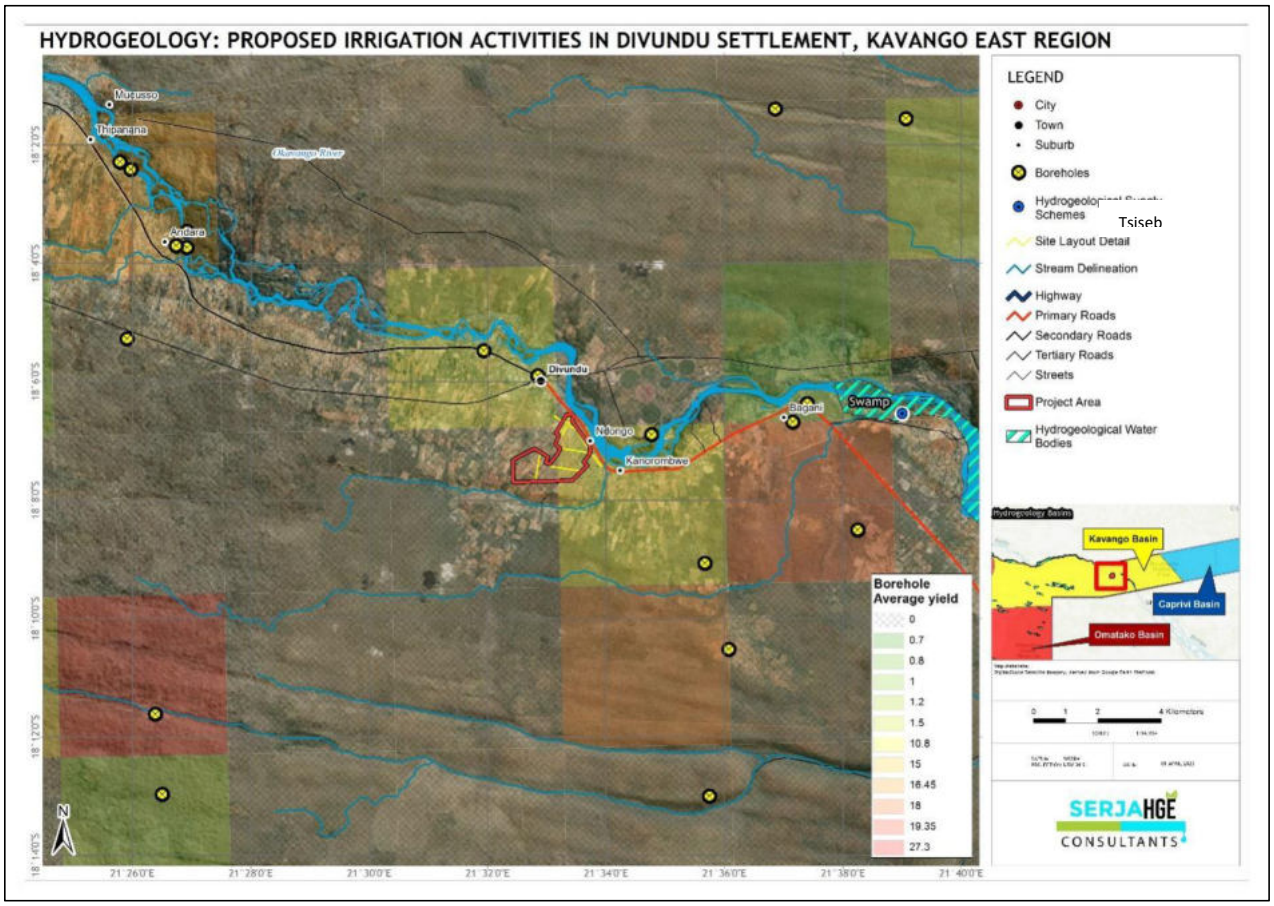

Figure 5: Hydrogeology map of the project site

6.4.1 Boreholes Yields

Borehole yields in the Regions range between less than 1 cubic meter per hour (m³/h) and greater than 70m³/h with the majority of boreholes yielding between 5m³/h and 10m³/h, which is suitable to satisfy the general rural water supply demand. High yielding areas are along the Okavango River

and within the shallow aquifer southwest of Rundu. Low yields between 1 m³/hand 3m³/h can be expected in areas with a deep-water table and where the Kalahari sediments comprise a higher clay content. The borehole yield depends generally on the drilling method and borehole design. The yield of recently drilled boreholes has improved compared to earlier drilling, due to the application of suitable drilling diameters, pre-manufactured screens and adequate gravel pack (Ministry of Agriculture, Water and Forestry, 1994).

According to the hydrogeological map above, the average yields of the boreholes range between 1.5 and 27m3/h, with the site boreholes ranging varying between 1.5 and 15m3/h.

6.4.2 Surface Water Vulnerability to Pollution

With regards to surface water, potential pollution is likely to occur in the operational phase, particularly during heavy rain seasons. i.e., between October and March, when there would be a high risk of surface water run-off carrying along fertilizers, herbicides, accidental spills of hydrocarbons (oils and or fuels) and effluent (wastewater) into the river. If irrigation is to be carried out dry season (dry months of the year), then the risk of surface water pollution owing to rainfall run-off will be low to none. This is because wet waste spills would be easy to control, clean up and manage compared to rainy season with high surface runoff during heavy rains.

Similarly, the risk of pollution to surface water systems during the operational phase would be high if any major spills or leaks of fuels and fertilizers, herbicides land on the ground surface during the rainy seasons compared to dry or months with little to no rainfall (May to September).

6.5 Heritage/Archaeology

No archaeological sites were noted within the perimeter of the site. However, should archaeological/heritage material be found during the road construction activities, a “chance find procedure” should be followed as per the ESMP.

6.6 Dust and Noise

The only source of dust in the area is generated by the vehicles on the tracks connecting the homesteads to the C48 tarred road and the day-to-day community and agricultural activities.

Existing noise sources within and around the project site include:

- natural sounds from wind, animals and birds.
- vehicle movement on the public road network.
- noise arising from the day to day activities associated with the Ndongo Village.

Potential receptors of noise are the neighboring homesteads in Ndongo Village. The sensitivity of noise receptors usually increases at night when conditions are still, and ambient noise levels are at their lowest.

6.7 Visual and Sense of Place

The proposed project area is currently used predominantly for subsistence farming activities. The area is dominated by community activities and has no unique scenic features. The visual receptors would be the travelers and tourists on the C48 tarred road, however, due to presence of community activities, the landscape character of the area is therefore regarded as low to moderate and therefore does not present any significant visual impact.

6.8 Land-use

The land in Divundu is either under State or communal administration. The communities depend to a great extent on resources directly from the land. The land within the project boundary is largely cleared for homesteads, crop production fields and recreational activities such as informal soccer and netball fields. Most of the crop fields are used for subsistence farming of cereal which is made up of mahangu and sorghum, where each individual and family holds rights to land zoned for cultivation. Apart from crop production, a vast open grassland can also be found within the boundary of the site which is largely used for livestock grazing.

The rest of the communal land in the surrounding is made up of commercial uses such as tourist lodges. The state-controlled areas consist primarily of game reserves and national parks, and state forests.

6.9 Traffic

The traffic observed is the vehicles of the residents of Divundu and tourists traveling on the C48 tarred road to and from the nearby lodges.

6.10 Social and Economic Environment

6.10.1 Local Overview

The socio-economic status in Divundu where the proposed project site is situated is characterized by Agro Marketing and Tourism industry. Large numbers of tourists are recorded to visit Divundu and its neighbouring tourist attraction areas. Attraction features like wildlife national parks, Popa Falls, and Okavango River which favour aquatic ecosystems contribute to the socioeconomic status of Divundu. It is also a transport networking village town from Angola, Botswana, and Zambia and apart from that, it is also Kavango East regional second administrative village town. The village town is characterized by low-income earners, rapid population growth, development, and large vast tracts of land (RKPC, 2022).

6.10.2 Demographics

According to the 2011 National census, the Mukwe Constituency had a population of 27 690 inhabitants of which there are slightly more female (14 326) residents in the area than male (13 364). The surrounding area of the proposed irrigation site is largely confined to scattered homesteads and

lodges towards the banks of the Kavango River. The only large settlement near the proposed site is the Divundu urban center where basic services such as water, electricity, sewerage system, water reticulation for residential, police and business activities are available.

7 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND POTENTIAL IMPACTS

The consultation process with key stakeholders that included government authorities and I&APs allowed the opportunity to raise the issues associated with the project development. The relevance of the potential impacts ("screening") are also presented in the tables below to determine aspects to be assessed in further detail (Section 8 of this report).

Table 7: Environmental Aspects and Potential Impacts

ACTIVITY / FACILITY	ASPECT	POTENTIAL ENVIRONMENTAL IMPACT	RELEVANCE (SCREENING) OF POTENTIAL IMPACT
Construction Phase	Soil stripping (earthmoving equipment)	Potential impact on biodiversity (physical impacts and general disturbance) ◆ Loss of habitat ◆ Loss of biodiversity	With reference to section 6.3.1, the area is very much an open grassland, with scattered shrub and thorn bushes. There are a number of fruit barring trees, such as Jackals Berry, Monkey Orange, Baobab and Xemina Africana. Due to the sensitivities of above-mentioned species, biodiversity has been assessed further in section 8.
		◆ Potential impact on heritage sites ◆ Destruction and loss of heritage sites	With reference to section 6.6, no archaeological sites were noted within the perimeter of the site. The related management and mitigation measures are stipulated in the ESMP, and no further assessment is required.
	Dust and Noise	Impact on health and safety	With reference to section 6.8, The only source of dust in the area is generated by the vehicles on the tracks connecting the homesteads to the C48 tarred road and the day-to-day community and agricultural activities. Existing noise sources within and around the project site include natural sounds from wind, animals and birds, vehicle movement on the public road network and noise arising from the day-to-day activities associated with the community members of Ndongo Village. Therefore, the potential dust and noise levels are not expected to increase significantly. The related management and mitigation measures are stipulated in the ESMP, and no further assessment is required.
	Economic impacts	Impacts on local economy ◆ Increased Employment opportunities. ◆ Transfer of skills	Subcontractors and labourers will be appointed for the road construction. Due to the potential socioeconomic impacts, socioeconomic has been assessed further in section 8.
	Vehicle and truck movement	Injury to people and animals and health and safety impacts	With reference to section 6.10, The traffic observed is the vehicles of the residents of Divundu and tourist traveling on the C48 tarred road to and from the nearby lodges. The intersection to the access roads can cause accidents that may lead to death and/or injury to people and animals. The flow of traffic on the road is expected to be disrupted during the construction activities, such as during pipeline installation from the river to the site which will intersect the C48 tarred road.

			Due to the potential traffic impacts, health and safety has been assessed further in section 8.
	Waste disposal Sewerage management	Health and Safety impacts	With reference to section 4.6, Domestic waste will be generated on site during construction and operations. The exact quantities cannot be determined at this stage and will vary according to season. Waste will be transported off site and disposed of at the nearest landfill site. No waste will be disposed of or burnt on site. All hazardous waste, i.e., pesticide containers, chemical containers, hydrocarbon contaminated materials, used hydrocarbons etc., will be removed from site and disposed of at a licensed hazardous waste disposal site (Kupferberg). Due to the significance of the potential impact as a result of hydrocarbons, pollution has been assessed further in section 8.
General Operations	Vehicle and truck movement	Injury to people and animals and health and safety impacts	With reference to section 6.11, The traffic observed is the vehicles of the residents of Divundu and tourists traveling on the C48 tarred road to and from the nearby lodges. However, there is no significant increase in traffic anticipated during the operational phase. The related management and mitigation measures are stipulated in the ESMP, and no further assessment is required.
	Dust and Noise generated	Increase in disturbing noise and dust levels (nuisance impact to third parties)	With reference to section 6.8, The only source of dust in the area is generated by the vehicles on the tracks connecting the homesteads to the C48 tarred road and the day-to-day community and agricultural activities. Therefore, the dust and noise levels are not expected to increase during the operational phase. The related management and mitigation measures are stipulated in the ESMP, and no further assessment is required.
	Waste disposal Sewerage management	Emissions to land, impact on biodiversity, environmental degradation and nuisance impacts and contamination of surface water and groundwater	With reference to section 4.2.2, relatively small quantities of waste is anticipated to be generated during the construction of the proposed roads. Waste shall be transported to the nearest waste disposal site. The related management and mitigation measures are stipulated in the ESMP, and no further assessment is required.
	Visual Impacts and sense of place	Changes in visual conditions	The proposed project area is currently used predominantly for subsistence farming activities. The area is dominated by community activities and has no unique scenic features. The visual receptors would be the travelers and tourists on the C48 tarred road, however, due to presence of community activities, the landscape character of the area is therefore regarded as low to moderate and therefore does not present any significant visual impact. The related management and mitigation measures are

			stipulated in the ESMP, and no further assessment is required.
	Socio-economic impacts	◆ Increased Employment opportunities ◆ Negative socioeconomic impacts	Subcontractors and labourers will be appointed for the road construction. Due to the potential socioeconomic impacts, socioeconomic has been assessed further in section 8.
	Surface Water Contamination		With reference to section 6.5.2, surface water potential pollution is likely to occur in the operational phase, particularly during heavy rain seasons. i.e., between October and March, when there would be a high risk of surface water run-off carrying along fertilizers, herbicides, accidental spills of hydrocarbons (oils and or fuels) and effluent (wastewater) into the river. If irrigation is to be carried out dry season (dry months of the year), then the risk of surface water pollution owing to rainfall run-off will be low to none. This is because wet waste spills would be easy to control, clean up and manage compared to rainy season with high surface runoff during heavy rains. Similarly, the risk of pollution to surface water systems during the operational phase would be high if any major spills or leaks of fuels and fertilizers, herbicides land on the ground surface during the rainy seasons compared to dry or months with little to no rainfall (May to September). Due to the potential pollution impact, surface water pollution has been assessed further in section 8.

8 ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

8.1 Assessment Approach and Methodology

An assessment of the potential positive and negative impacts associated with the proposed subdivision activities is provided below.

The potential environmental impacts resulting from the proposed activities were assessed by I.N.K and are also presented below.

Impacts are considered in a cumulative manner where possible such that the impacts of the proposed Project are seen in the context of the baseline conditions described in Section 6. Information that has been included in Section 6 will not be repeated in this Section.

Both the criteria used to assess the impacts and the Method of determining the frequency/severity of the impacts is outlined in Table 8.

This Method complies with the EIA Regulations: EMA, 2007 (Government Gazette No. 4878) EIA regulations.

Both mitigated and unmitigated scenarios are considered for each impact in the ESIA results.

The potential impacts that require further assessment includes the following:

- Biodiversity Impacts.
- Ground Water and Surface Water Contamination.
- Socio-Economic Impacts.
- Health and Safety

Table 8: Frequency/Severity Rating

Likelihood/ Frequency	Definition	Probability	Rating	Consequence/ Severity				
				Insignificant	Minor	Moderate	Major	Critical
				Very minor or no impact.	Minor impact that can be contained	Impact may have moderate effects	Serious impact/effect	Permanent Impact/effect
				1	2	3	4	5
Very high	Almost certain Extremely likely	>90%	5	Low	Medium	High	Extreme	Extreme
				5	10	15	20	25
High	Very likely Will probably occur	60-90%	4	Low	Medium	Medium	High	Extreme
				4	8	12	16	20
Medium	Likely to happen	40-59%	3	Low	Low	Medium	Medium	High
				3	6	9	12	15
Low	Possible but unlikely	10-39%	2	Low	Low	Low	Medium	Medium
				2	4	6	8	10
Very low	Conceivable but extremely unlikely	<10%	1	Low	Low	Low	Low	Low
				1	2	3	2	2

8.2 Socio-Economic Environment

The positive and negative socio-economic impacts are assessed in the context of the overall proposed irrigation project, given that the various project components are interconnected.

8.2.1 Issue: Socio-Economic Benefits

The overall irrigation project has the potential to create significant socioeconomic benefits through employment creation, economic contributions and food security. Namibia's "Green Scheme Policy" (MAWF, 2008) states "[t]he mandate of the Ministry of Agriculture, Water and Forestry is the promotion, development, management and utilisation of agricultural, water and forestry resources. It is, therefore, the objective of the Government to ensure agriculture productivity and food security in line with Vision 2030 strategy." The proposed Namibia berries project falls under the ambit of Namibia's "Green Scheme". The benefits include employment opportunities, skills and development training and capital injection into businesses within Okavango East.

Additionally, project offers the region an opportunity to develop sustainably through its collaborative links with the local authorities, in fast tracing development in the region, in order to enhance improved public service delivery and social welfare in the region.

Given the above, the cumulative unmitigated severity is **high**, but may be reduced to **extreme** with the successful implementation of the mitigation measures outlined in the ESMP.

Table 9: Assessment - Socio-Economic Benefits

				Severity	
Likelihood	**Definition**	**Probability**	**Rating**	**Unmitigated**	**Mitigated**
Very High	Almost certain Extremely likely	>90%	5	High (15)	Extreme (25)

8.2.2 Issue: Negative Impacts on the Socio-economic Environment

Although the project may benefit the socio-economic environment, the project may also draw people to the town (in-migration), which may place pressure on existing services and opportunities and may create health and safety issues, such as housing, health, sanitation and educational facilities. The influx of people may also result in an increase in negative social behaviours including an increase in the crime rate. It may also lead to increase in the spread of diseases.

Given the above, the cumulative unmitigated severity is **high**, but may be reduced to **low** with the successful implementation of the mitigation measures outlined in the ESMP.

Table 11: Assessment - Negative Impacts on the Socio-Economic Environment

				Severity	
Likelihood	**Definition**	**Probability**	**Rating**	**Unmitigated**	**Mitigated**
Very High	Almost certain Extremely likely	>90%	5	High (15)	Low (5)

8.3 Biodiversity

The following are sources of risk to biodiversity as a result of the project:

- Clearing of land and handling and deposition of material cleared from the site.
- Human behaviour:
  - Collection of firewood,
  - Sanitation practices,
  - Illegal collection of plants and animals.

Overall, impacts may increase or decrease the risk of species persistence through indirect or direct effects on population processes, chiefly as a result of alteration of habitat size, quality and cohesiveness, as well as alteration of key ecological processes.

8.3.1 Issue: Direct destruction of organisms and their habitats

The death of plants and slow-moving animals, as well as dormant invertebrates, could be caused by the removal or destruction of individual organisms during the road construction activities or by being struck by vehicles and machinery.

Since there is few threatened fauna species that could be affected, the expected increase in risk to species survival is low. However, at a habitat level, the loss of important fruit bearing trees, such as Jackals Berry, Monkey Orange, Baobab and Xemina Africana

For woodlands, animals that are likely to be affected include tortoises (especially Speke's Hinged Tortoise), small mammals and lizards, skinks and geckos and a number of woodland bird species.

For Grasslands and Pans, all the species that require ephemeral wetlands for breeding or shelter, as well as species that depend on open grazing, will be affected.

Direct impacts to birds would include removal of nest sites in trees and on the ground.

The death of plants and slow-moving animals, as well as dormant invertebrates, could be caused by the removal or destruction of individual organisms during the road construction activities or by being struck by vehicles and machinery.

Given the above, the cumulative unmitigated severity is **extreme**, but may be reduced to **medium** with the successful implementation of the mitigation measures outlined in the ESMP.

Table 12: Assessment - Direct destruction of organisms and their habitats

				Severity	
Likelihood	**Definition**	**Probability**	**Rating**	**Unmitigated**	**Mitigated**
Very High	Almost certain Extremely likely	>90%	5	Extreme (20)	Medium (10)

8.4 Surface Water Contamination

8.4.1 Issue: Pollution of water sources

With reference to section 6.5.2, surface water potential pollution is likely to occur in the operational phase, particularly during heavy rain seasons. i.e., between October and March, when there would be a high risk of surface water run-off carrying along fertilizers, herbicides, accidental spills of hydrocarbons (oils and or fuels) and effluent (wastewater) into the river. If irrigation is to be carried out dry season (dry months of the year), then the risk of surface water pollution owing to rainfall run-off will be low to none. This is because wet waste spills would be easy to control, clean up and manage compared to rainy season with high surface runoff during heavy rains.

Similarly, the risk of pollution to surface water systems during the operational phase would be high if any major spills or leaks of fuels and fertilizers, herbicides land on the ground surface during the rainy seasons compared to dry or months with little to no rainfall (May to September).

Given the above, the cumulative unmitigated severity is **medium**, but may be reduced to **low** with the successful implementation of the mitigation measures outlined in the ESMP.

Table 13: Assessment - Pollution of water resources (groundwater and surface water)

				Severity	
Likelihood	**Definition**	**Probability**	**Rating**	**Unmitigated**	**Mitigated**
Medium	Likely to happen	40-59%	3	Medium (12)	Low (6)

8.5 Health and Safety

8.5.1 Issue: Potential Health and Safety Impacts

Namibia Berries will ensure that safety standards are applied at all times during the road construction as required by the Labour Act of Namibia. The safety, security and health of the labour force, employees and general public are of great importance. The company will develop and implement a robust ESMP to mitigate all safety and security risks associated to its activities. Workers should be orientated with the maintenance of safety and health procedures, and they should be provided with PPE (Personal Protective Equipment). Health and safety representatives should be employed to coordinate and monitor risks and its associated hazards and report all health and safety related issues in the workplace.

The promotion and maintenance of the physical and mental well-being of its workforce is paramount. In this regard Health and Safety Policies will be developed to ensure full compliance with the various legislative requirements.

In view of the diverse composition of its workforce, Namibia Berries will arrange for the pre-employment medical check-ups, the purpose of which to identify persons with disease carrying illnesses such as Covid-19, HIV/Aids, diabetes, high blood pressure, colour blindness, or any physical factor which, if not identified in time, may result in any form of loss and/or claims to the proponent as the employer.

A health risk assessment will be conducted in order identify hazards as referred to above. The outcome of such assessment will enable it to make appropriate provision for the development of policies and procedures relevant to the site.

Given the above, the cumulative unmitigated severity is **high**, but may be reduced to **low** with the successful implementation of the mitigation measures outlined in the ESMP.

Table 14: Assessment - Potential Health and Safety Impacts

				Severity	
Likelihood	**Definition**	**Probability**	**Rating**	**Unmitigated**	**Mitigated**
Medium	Likely to happen	40-59%	3	Medium (12)	Low (6)