### COEGA DEVELOPMENT CORPORATION

# WILDCOAST SPECIAL ECONOMIC ZONE, MTHATHA FINAL SCOPING REPORT

07 JUNE 2018

wsp

PUBLIC





# WILDCOAST SPECIAL ECONOMIC ZONE, MTHATHA FINAL SCOPING REPORT

COEGA DEVELOPMENT CORPORATION

TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO.: 14/12/16/3/3/2/1064 DATE: JUNE 2018

WSP BUILDING C, KNIGHTSBRIDGE 33 SLOANE STREET BRYANSTON, 2191 SOUTH AFRICA

T: +27 11 361 1380 F: +27 11 361 1381 WSP.COM

# QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	<b>REVISION 1</b>	<b>REVISION 2</b>	<b>REVISION 3</b>
Remarks	Final Scoping Report			
Date	June 2018			
Prepared by	Tutayi Chifadza			
Signature				
Checked by	Ashlea Strong			
Signature				
Authorised by	Ashlea Strong			
Signature				
Project number	41100611			
Report number	01			
File reference	W:\000 NEW Projects Report\FESR	\41100611 - Wildcoast	EIA\42 ES\2-REPORT	S\Scoping

## SIGNATURES

PREPARED BY

Mr Tutayi Chifadza, Assistant Consultant

**REVIEWED BY** 

Mrs Ashlea Strong, Principal Consultant

#### WAIVER

#### Purpose and basis of preparation of this Report

This Draft Environmental Scoping Report (Report) has been prepared by WSP Environmental Proprietary Limited (WSP) on behalf and at the request of Coega Development Corporation (CDC) (Client), to provide the Client with an understanding of the Relevant Documents.

Unless otherwise agreed by us in writing, we do not accept responsibility or legal liability to any person other than the Client for the contents of, or any omissions from, this Report.

To prepare this Report, we have reviewed only the documents and information provided to us by the Client or any third parties directed to provide information and documents to us by the Client. We have not reviewed any other documents in relation to this Report and except where otherwise indicated in the Report

# PRODUCTION TEAM

#### COEGA DEVELOPMENT CORPORATION

Simphiwe Silwana	SHEQ – External Programmes
Viwe Biyana	Head of SHEQ
David Lefutso	Programme Director – Wild Coast SEZ
WSP	
Assistant Consultant	Tutayi Chifadza
Principal Consultant	Ashlea Strong

#### SUBCONSULTANTS

Biodiversity and Wetland Specialists	Eco-Pulse - Adam Teixeira-Leite
Heritage Specialist	Frans Prins

# vsp

# TABLE OF CONTENTS

1	INTRODUCTION
1.1	Purpose of this Report4
1.2	Background Information4
1.3	Environmental Assessment Practitioner6
1.4	Scoping Terms of Reference
1.5	Draft Scoping Report Structure7
1.6	Assumptions and Limitations9
2	GOVERNANCE FRAMEWORK 11
3	SCOPING METHODOLOGY
3.1	Application18
3.2	Baseline Environmental Assessment21
3.3	Identification and Evaluation of Potentially Significant Impacts
3.4	Stakeholder Engagement23
4	NEED AND JUSTIFICATION
4 5	NEED AND JUSTIFICATION
4 5 5.1	NEED AND JUSTIFICATION       28         PROJECT DESCRIPTION       29         Location of the Proposed Development       29
4 5 5.1 5.2	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32
4 5 5.1 5.2 5.3	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32Basic Process Description34
4 5 5.1 5.2 5.3 6	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32Basic Process Description34IDENTIFICATION OF ALTERNATIVES37
4 5.1 5.2 5.3 6 6.1	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32Basic Process Description34IDENTIFICATION OF ALTERNATIVES37No-Go Alternative37
4 5 5.1 5.2 5.3 6 6.1 6.2	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32Basic Process Description34IDENTIFICATION OF ALTERNATIVES37No-Go Alternative37Location37
4 5 5.1 5.2 5.3 6 6.1 6.2 6.3	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32Basic Process Description34IDENTIFICATION OF ALTERNATIVES37No-Go Alternative37Location37Type of Activity39
4 5.1 5.2 5.3 6 6.1 6.2 6.3 6.4	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32Basic Process Description34IDENTIFICATION OF ALTERNATIVES37No-Go Alternative37Location37Type of Activity39Technology39
4 5 5.1 5.2 5.3 6 6.1 6.2 6.3 6.4 7	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32Basic Process Description34IDENTIFICATION OF ALTERNATIVES37No-Go Alternative37Location37Type of Activity39Technology39DESCRIPTION OF THE BASELINE40
4 5 5.1 5.2 5.3 6 6.1 6.2 6.3 6.4 7	NEED AND JUSTIFICATION28PROJECT DESCRIPTION29Location of the Proposed Development29Proposed Project Development Activities32Basic Process Description34IDENTIFICATION OF ALTERNATIVES37No-Go Alternative37Location37Type of Activity39Technology39DESCRIPTION OF THE BASELINE40Climate40

# vsp

7.2	Topography43
7.3	Geology44
7.4	Surface Water44
7.5	Ground Water48
7.6	Land Use and Capability48
7.7	Air Quality49
7.8	Flora and Fauna50
7.9	Heritage55
7.10	Traffic
7.11	Socio Economic Profile
8	IDENTIFICATION OF POTENTIAL IMPACTS 58
8.1	Climate
8.2	Topography58
8.3	Geology
8.4	Surface Water
8.5	Ground Water60
8.6	Land Use and Capability60
8.7	Air Quality61
8.8	Flora and Fauna Impacts62
8.9	Heritage63
8.10	Traffic64
8.11	Socio Economic Profile65
8.12	Summary of Potential Impacts
9	PLAN OF STUDY FOR THE ENVIRONMENTAL IMPACT ASSESSMENT REPORTING PHASE73
9.1	Terms of Reference73
9.2	Overview of the EIAR Tasks73
9.3	Description of Alternatives74
9.4	Aspects to be assessment within the EIA Process74
9.5	Impact Assessment Methodology75

# vsp

9.6	Environmental Impact Assessment Report	79
9.7	Stakeholder and Authority Engagement	80
10	WAY FORWARD	82
BIBI	LIOGRAPHY	83

# wsp

#### **TABLES**

TABLE 1-1:	DETAILS OF THE ENVIRONMENTAL	0
		6
TABLE 1-2:	LEGISLATION REQUIREMENTS AS	_
	DETAILED IN GNR 326	
TABLE 2-1:	APPLICABLE LEGISLATION AND	
	POLICIES	11
TABLE 3-1:	SIGNIFICANCE SCREENING TOOL	21
TABLE 3-2:	PROBABILITY SCORES AND	
	DESCRIPTORS	22
TABLE 3-3:	CONSEQUENCE SCORES AND	
	DESCRIPTORS	22
TABLE 3-4:	IMPACT SIGNIFICANCE COLOUR	
	REFERENCE SYSTEM TO INDICATE THE	
	NATURE OF THE IMPACT	23
TABLE 3-5:	SITE NOTICE LOCATIONS	25
TABLE 8-1:	LOCATION OF SENSITIVE RECEPTORS	
	AROUND THE PROPOSED WCSEZ	61
TABLE 8-2:	SUMMARY TABLE OF POTENTIAL	
	ENVIRONMENTAL AND SOCIAL	
	IMPACTS	66
TABLE 8-3:	MITIGATION MEASURES	71
TABLE 9-1:	PLAN OF STUDY STRUCTURE	
TABLE 9-2:	FURTHER ASSESSMENTS REQUIRED	
TABLE 9-3:	NATURE OR TYPE OF IMPACT	
TABLE 9-4	PHYSICAL EXTENT RATING OF IMPACT	77
TABLE 9-5	DURATION RATING OF IMPACT	77
TABLE 9-6	MAGNITUDE RATING OF IMPACT	77
TARI E 9-7.		78

### **FIGURES**

FIGURE 3-1:	S&EIR PROCESS	20
FIGURE 5-1:	PHASE 1 AREA IN YELLOW	30
FIGURE 5-2:	GOVERNMENT GAZETTE EXTRACT	30
FIGURE 5-3:	MTHATHA AIRPORT LAND CLAIM	
	EXTENT	31
FIGURE 5-4:	NCISA AND FAIRFIELD LAND CLAIM	31
FIGURE 5-5:	EXISTING INFRASTRUCTURE	34
FIGURE 6-1:	PROPOSED PROJECT AREA	38
FIGURE 7-1:	MTHATHA CLIMOGRAPH (SOURCE:	
	CLIMATE-DATA.ORG)	40
FIGURE 7-2:	MTHATHA HISTORICAL DATA / CLIMATE	
	TABLE (SOURCE: CLIMATE-DATA.ORG)	41
FIGURE 7-3:	MTHATHA TEMPERATURE GRAPH	
	(SOURCE: CLIMATE-DATA.ORG)	41
FIGURE 7-4:	MONTHLY PRECIPITATION (SOURCE	
	METEOBLUE.COM)	42

# wsp

FIGURE 7-5:	MTHATHA AIRPORT WIND SPEED	
	CHART	42
FIGURE 7-6:	MTHATHA AIRPORT WIND ROSE	43
FIGURE 7-7:	ELEVATION PROFILE TO THE NORTH	44
FIGURE 7-8:	REGIONAL AND LOCAL (SITE)	
	DRAINAGE SETTING	45
FIGURE 7-9:	WETLAND MAP	46
FIGURE 7-10:	AQUATIC CBA MAP	47
FIGURE 7-11:	AGRO-PROCESSING HUB	
	DEVELOPMENT / LAND USE ZONES	49
FIGURE 7-12:	KEY CONSERVATION CONTEXT	50
FIGURE 7-13:	TERRESTRIAL CBA MAP	51
FIGURE 7-14:	EXTENT OF THE NDULI LUCHABA	
	NATURE RESERVE	52
FIGURE 7-15:	FLORA OF CONSERVATION	
	SIGNIFICANCE	53

#### **APPENDICES**

- A EAP CV
- **B** EAP DECLARATION OF INTEREST AND UNDERTAKING
- C STAKEHOLDER COMMENTS AND DATABASE
- D PUBLIC PARTICIPATION
- E SPECIALIST STUDIES
- E-1 Aquatic and terrestrial ecology report
- E-2 Desktop Heritage Impact Assessment
- F LAND CLAIM COMMUNITY RESOLUTION

#### GLOSSARY

ABBREVIATION	MEANING
АРРА	Atmosphere Pollution Prevention Act
AQA	Air Quality Act
ВА	Basic Assessment
BLMCs	Biodiversity Land Management Classes
вро	Business Process Outsourcing
СВА	Critical Biodiversity Area
CDC	Coega Development Corporation
CRR	Comment and Response Report
DEA	Department of Environmental Affairs
DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DoT	Department of Transport
DSR	Draft Scoping Report
DPW	Department of Public Works
рті	Department of Trade and Industry
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECBCP	Eastern Cape Biodiversity Conservation Plan
EC	Eastern Cape
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EMP	Environmental Management Programme

FSR	Final Scoping Report
ha	Hectares
нv	High Voltage
ІСТ	Information and Communications Technology
IDP	Integrated Development Plan
IDZ	Industrial Development Zone
IPAP	Industrial Policy Action Plan
KSDLM	King Sabata Dalindyebo Local Municipality
NDP	National Development Plan
NEMA	National Environmental Management Act
NPAES	National Protected Areas Expansion Strategy
ORTDM	O.R. Tambo District Municipality
PES	Present Ecological State
PIDS	Provincial Industrial Development Strategies
РМО	Project Management Office
POC	Potential Occurrence
QDGS	Quarter Degree Grid Square
S&EIR	Scoping and Environmental Impact Reporting
SABAP	South African Bird Atlas Project
SAHRIS	South African Heritage Resources Information System
SANRAL	South African National Roads Agency Limited
SAWS	South African Weather Services
SDF	Spatial Development Framework
SEZ	Special Economic Zone
SMME	Small and Medium Sized Enterprises

SoE	State-Owned Enterprise
t	Tonnes
ТІА	Traffic Impact Assessment
WCSEZ	Wild Coast Special Economic Zone
WMA	Water Management Area
WSP	WSP Environmental (Pty) Ltd

# **1** INTRODUCTION

## 1.1 PURPOSE OF THIS REPORT

This <u>final scoping report (FSR)</u> documents the process and findings of the scoping phase of the Scoping and Environmental Impact Reporting (S&EIR) process for the proposed development of a Strategic Economic Zone (SEZ) in the Wild Coast Area, to the immediate north and immediate south of the Mthatha Airport.

The <u>FSR</u> provides stakeholders and authorities with information that is necessary for a proper understanding of the scoping process; for informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process undertaken through the environmental impact assessment process.

## **1.2 BACKGROUND INFORMATION**

The Department of Trade and Industry (DTI) developed the SEZ policy to support and accelerate industrial development in targeted regions where socio-economic growth has been problematic. This would be achieved by the provision of special measures needed to develop targeted industrial and agricultural capabilities and attract targeted foreign and domestic direct investment. The SEZ policy has four (4) specific objectives:

- Support the development of targeted industrial capabilities and attract foreign and domestic direct investments in support of the Industrial Policy Action Plan (IPAP) and Provincial Industrial Development Strategies (PIDS's), under the over-arching National Development Plan (NDP);
- Develop world-class industrial infrastructure in line with the requirements of the targeted industries and investments;
- Promote beneficiation and further value addition of the country's mineral and agricultural resources; and
- Contribute to the creation of sustainable jobs and increase exports of beneficiated commodities in the targeted regions.

The Wild Coast Special Economic Zone (WCSEZ) is intended to address the under-development of industry and agriculture in the Wild Coast region, the elevated unemployment levels, particularly among the youth, and unacceptable high levels of poverty.

The viability of the proposed WCSEZ will depend on the suggested approach, which will be phased.

- 1) Phase 1 mainly Sector development cluster (Agro-processing Sector) housing facilities to unlock the primary sector with the hub near Mthatha Airport.
- 2) Phase 2 Services Sector that will focus on the support industries for Agro-processing. This could include Logistics and Distribution, Business Process Outsourcing (BPO), Call Centres and others. Further investigations need to be done to enhance the value proposition and viability of this Sector. This second Phase will also contain value added support infrastructure such as accommodation, skills and training centre, a commercial node and innovation and industrial services nodes.

It is envisioned that increased commercial activity in the area will assist in the development of the tourism sector.

The Coega Development Corporation (CDC) is a state-owned enterprise (SoE) based in the Nelson Mandela Bay Municipality with operations throughout South Africa. The CDC is mandated to develop and operate the 11 500 ha Coega Industrial Development Zone (IDZ), which was established in 1999. To this end, the CDC is tasked with the responsibility to create employment, provide training and development, and Small and Medium Sized Enterprises (SMME) support and development opportunities, in order to reduce unemployment, inequalities, and to eradicate poverty in the Eastern Cape (EC), with a focus on Nelson Mandela Bay Metro, in particular. Therefore, the CDC's vision is to be the leading catalyst for the championing of socio-economic growth. Its mission is to provide a competitive investment location supported by value added business services that effectively enables socio-economic development in the EC and the rest of South Africa. In the 17 years since its establishment, the CDC has become South Africa's most successful IDZ and has matured to become one of the biggest drivers of job creation and development of the EC economy. It is purpose-designed following the cluster model, which strategically positions related and synergistic industries and their supply chains in close

proximity to one another in order to maximise efficiency and minimize turnaround times. The Coega IDZ is demarcated into 14 zones, with the focus being placed on the following sectors:

- Metals/Metallurgical;
- Automotive;
- BPO;
- Chemicals;
- Agro-processing;
- Logistics;
- Trade Solutions;
- Energy; and
- Maritime.

The CDC strives to improve the delivery of infrastructure in the EC by addressing skill shortages, unemployment, constrained planning and project management capacity, under-expenditure, sub-standard infrastructure, and inefficiencies that characterise delivery of infrastructure by government in South Africa generally and the EC in particular. In the process, the CDC advances socio-economic development and transformation within the EC and South Africa as a whole.

The proposed project site for the WCSEZ is directly adjacent to the Mthatha Airport, with boundaries at both the north and the south of the airport as shown in **Figure 1-1** below. The site is north of the R61 and to the south of the Mtata Dam.



Figure 1-1: Locality Map

## 1.3 ENVIRONMENTAL ASSESSMENT PRACTITIONER

WSP Environmental (Pty) Ltd (WSP) has been appointed in the role of Independent Environmental Assessment Practitioner (EAP) to undertake the S&EIR processes for the development of the biotechnology plant. The CV of the EAP is available in **Appendix A**. The EAP declaration of interest and undertaking is included in **Appendix B. Table 1-1** details the relevant contact details of the EAP. In order to adequately identify and assess potential environmental impacts, the EAP will be supported by a number of specialists.

#### Table 1-1: Details of the Environmental Assessment Practitioner

#### ENVIRONMENTAL ASSESSMENT PRACTITIONER

(EAP)	
-------	--

#### WSP ENVIRONMENTAL (PTY) LTD

Company Registration:	1995/08790/07
Contact Person:	Tutayi Chifadza
Postal Address:	PO Box 98867 Sloane Park 2151 Johannesburg
Telephone:	011 361 1390
Fax:	011 361 1301
E-mail:	Tutayi.Chifadza@wsp.com

### 1.4 SCOPING TERMS OF REFERENCE

The 2014 Environmental Impact Assessment (EIA) Regulations (GNR 326), as amended, identifies the proposed CDC development as an activity being subject to an S&EIR process due to the applicability of the EIA Listing Notices Government Regulation Notice GNR. 325, published on 7 April 2017. In order for the project to proceed it will require an Environmental Authorisation (EA) from the Department of Environmental Affairs (DEA).

As defined in Appendix 2 of GNR 326, the objective of the scoping process is to, through a consultative process:

- Identify the relevant policies and legislation relevant to the activity;
- Motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- Identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
- Identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
- Identify the key issues to be addressed in the assessment phase;
- Agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and

 Identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

Public participation is a requirement of scoping; it consists of a series of inclusive and culturally appropriate interactions aimed at providing stakeholders with opportunities to express their views, so that these can be considered and incorporated into the S&EIR decision-making process. Effective public participation requires the prior disclosure of relevant and adequate project information to enable stakeholders to understand the risks, impacts, and opportunities of the Proposed Project. The objectives of the public participation process can be summarised as follows:

- Identify relevant individuals, organisations and communities who may be interested in or affected by the Proposed Project;
- Clearly outline the scope of the Proposed Project, including the scale and nature of the existing and proposed activities;
- Identify viable Proposed Project alternatives that will assist the relevant authorities in making an informed decision;
- Identify shortcomings and gaps in existing information;
- Identify key concerns, raised by Stakeholders that should be addressed in the subsequent specialist studies;
- Highlight the potential for environmental impacts, whether positive or negative; and
- To inform and provide the public with information and an understanding of the Proposed Project, issues and solutions.

### **1.5 DRAFT SCOPING REPORT STRUCTURE**

**Table 1-2** cross-references the sections within the <u>FSR</u> with the legislated requirements as per Appendix 2 of GNR 326, published in 2017.

#### Table 1-2: Legislation Requirements as detailed in GNR 326

#### APPENDIX 2 LEGISLATED REQUIREMENTS AS PER THE NEMA GNR 982

#### RELEVANT REPORT SECTION

(a)	Details of	
	the EAP who compiled the report; and	Section 1.2 and Appendix A
	the expertise of the EAP, including a Curriculum Vitae	Appendix A
(b)	The location of the activity, including-	
	The 21 digit Surveyor code for each cadastral land parcel;	N/A
	Where available, the physical address and farm name	N/A
	Where the required information in terms of (i) and (ii) is not available, the coordinates of the boundary of the property.	Section 1.2
(c)	A plan which locates the proposed activities applied for at an appropriate scale, or	, if it is-
	A linear activity, a description of the corridor in which the proposed activity or activities is to be undertaken; or	N/A
	On land where the property has not been defined, the coordinates within which the activity is to be undertaken.	Section 1.2
(d)	A description of the proposed activity, including-	•

	All listed and specified activities triggered;	Section 2 Table 2.1 Section 5.3
	A description of the activities to be undertaken, including associated structures and infrastructure;	Section 5
(e)	A description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process;	Section 2
(f)	A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;	Section 4
(h)	A full description of the process followed to reach the proposed preferred activity, s the site, including-	site and location within
	Details of all the alternatives considered;	Section 6
	Details of the public participation undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;	Section 3.4
	a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	Section 3.4 and Appendix C
	the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 7
	<ul> <li>the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts-</li> <li>(aa) can be reversed;</li> <li>(bb) may cause irreplaceable loss of resources; and</li> <li>(cc) can be avoided, managed or mitigated;</li> </ul>	Section 8
	the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;	Section 3.3
	positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section 8
	the possible mitigation measures that could be applied and level of residual risk;	Section 8
	the outcome of the site selection matrix;	Section 6
	if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and	Section 6
	a concluding statement indicating the preferred alternatives, including preferred location of the activity;	Chapter 6
(i)	A plan of study for undertaking the environmental impact assessment process to b including-	e undertaken,

	a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;	Section 6
	a description of the aspects to be assessed as part of the environmental impact assessment process;	Section 8
	aspects to be assessed by specialists;	Section 9.3
	a description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists;	Section 9.4
	a description of the proposed method of assessing duration and significance;	Section 9.4
	an indication of the stages at which the competent authority will be consulted;	Section 9.6
	particulars of the public participation process that be conducted during the environmental impact assessment process; and	Section 9.6
	a description of the tasks that will be undertaken as part of the environmental impact assessment process;	Section 9
	identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	Section 9.5
(j)	An undertaking under oath or affirmation by the EAP in relation to-	
	the correctness of the information provided in the report;	Appendix B
	the inclusion of comments and inputs from stakeholders and interested and affected parties; and	Appendix B
	any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties;	Appendix B
(k)	An undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment;	Appendix B
(I)	Where applicable, any specific information required by the competent authority; and	N/A
(m)	Any other matter required in terms of section 24(4)(a) and (b) of the Act.	N/A

## **1.6 ASSUMPTIONS AND LIMITATIONS**

General assumptions and limitations relating to the scoping study and the draft scoping report are listed below:

→ The EAP hereby confirms that they have undertaken to obtain project information from the client that is deemed to be accurate and representative of the project;

- → Site visits have been undertaken to better understand the project and ensure that the information provided by the client is correct, based on site conditions observed;
- → The EAP hereby confirms their independence and understands the responsibility they hold in ensuring all comments received are accurately replicated and responded to within the EIA documentation; and
- → The comments received in response to the public participation process, are representative of comments from the broader community; and
- → The competent authority would not require additional specialist input, as per the proposals made in this report, in order to make a decision regarding the application.

Notwithstanding these assumptions, it is the view of WSP that this <u>FSR</u> provides a good description of the issues associated with the project, and a reasonable plan of study for the EIA phase.

# **2 GOVERNANCE FRAMEWORK**

The South African regulatory framework establishes well-defined requirements and standards for environmental and social management of industrial and civil infrastructure developments. Environmental protection functions are carried out by different authorities at both national and regional levels. The applicable legislation and policies are shown in **Table 2-1** below.

#### Table 2-1: Applicable Legislation and Policies

APPLICABLE LEGISLATION AND POLICY	DESCRIPTION OF LEGISLATION
The Constitution of South Africa (No. 108 of 1996)	The Constitution cannot manage environmental resources as a stand-alone piece of legislation hence additional legislation has been promulgated in order to manage the various spheres of both the social and natural environment. Each promulgated Act and associated Regulations are designed to focus on various industries or components of the environment to ensure that the objectives of the Constitution are effectively implemented and upheld in an on-going basis throughout the country. In terms of Section 7, a positive obligation is placed on the State to give effect to the environmental rights.
National Environmental Management Act (No. 107 of 1998)	In terms of Section 24(2) of the NEMA, the Minister may identify activities which may not commence without prior authorisation. The Minister thus published GNR 327 (Listing Notice 1), 325 (Listing Notice 2) and 324 (Listing Notice 3) listing activities that may not commence prior to authorisation (7 April 2017).
	The regulations outlining the procedures required for authorisation are published in GNR 326 [Environmental Impact Assessment Regulations (EIA)] (7 April 2017). Listing Notice 1 identifies activities that require a Basic Assessment (BA) process to be undertaken, in terms of the EIA Regulations, prior to commencement of that activity. Listing Notice 2 identifies activities that require an S&EIR process to be undertaken, in terms of the EIA Regulations, prior to commencement of that activity. Listing Notice 3 identifies activities within specific areas that require a BA process to be undertaken, in terms of the EIA Regulations, prior to commencement of that activity.
	WSP undertook a review of the listed activities according to the proposed project description to conclude that <b>Listed Activity 15 of GNR 325</b> is considered applicable and therefore an S&EIR process must be followed. An EA is required and will be applied for.
Listing Notice 1: GNR 327	<b>Activity 9</b> – The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water—
	(i) with an internal diameter of 0,36 metres or more; or
	(ii) with a peak throughput of 120 litres per second or more
	<b>Activity 10</b> – The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes –
	(i) with an internal diameter of 0,36 metres or more; or
	(ii) with a peak throughput of 120 litres per second or more.
	Activity 12 – The development of:
	(ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs—
	(a) within a watercourse.
	<b>Activity 19</b> – The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.

APPLICABLE LEGISLATION AND POLICY	DESCRIPTION OF LEGISLATION
	Activity 24 – The development of a road—
	(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres.
Listing Notice 2: GNR 325	<b>Activity 15</b> - The clearance of an area of 20 hectares or more of indigenous vegetation, excluding 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: GNR 324	<b>Activity 4</b> – The development of a road wider than 4 metres with a reserve less than 13,5 metres.
	(a) Eastern Cape:
	i. Outside urban areas:
	(bb) National Protected Area Expansion Strategy Focus areas
	(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.
	<b>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.
	(a) Eastern Cape:
	i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;
	ii. Within critical biodiversity areas identified in bioregional plans.
	<b>Activity 14</b> – The development of (ii) infrastructure or structures with a physical footprint of 10 square metres or more; Where such development occurs – (a) within a watercourse
	(a) Eastern Cape:
	i. Outside urban areas:
	(bb) National Protected Area Expansion Strategy Focus areas
	(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;
	<b>Activity 15</b> – The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010.
	(a) Eastern Cape
	i. Outside urban areas
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM:WA) is subsidiary and supporting legislation to the NEMA. The Act is a framework legislation that provides the basis for the regulation of waste management. The Act also contains policy elements and gives a mandate for further regulations to be promulgated.
	On 29 November 2013 GNR 921 was promulgated (repealing GN R718) which contains a list of waste management activities that if triggered require a Waste Management License (WML) and in turn a Basic Assessment (Category A activities) or Scoping and EIA (Category B activities) process to be undertaken in terms of the NEMA EIA Regulations. Category C

APPLICABLE LEGISLATION AND POLICY	DESCRIPTION OF LEGISLATION
	activities are required to comply with the Norms and Standards for Storage of Waste 2013 (GN. 926) and do not require authorisation.
	It is anticipated that activities on the site will not trigger the NEM:WA. However, waste handling, storage and disposal during the construction and operational phase of the project must be undertaken in accordance with the requirements of this Act and the Best Practicable Environmental Option which will be incorporated into the site specific Environmental Management Programme (EMPr).
National Environment Management: Air Quality Act, 2004 (Act No. 39 of 2004)	The National Environment Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEM:AQA), which repeals the Atmospheric Pollution Prevention Act of 1965 (APPA), came into effect on 11 September 2005, with the promulgation of regulations in terms of certain sections resulting in the APPA being repealed entirely on 1 April 2010. Persons undertaking such activities are required to possess an Atmospheric Emissions License (AEL), essentially the equivalent of a Registration Certificate under the APPA.
	In terms of Section 32 of the NEM:AQA The National Dust Control Regulations (GNR 827) were promulgated, which aim at prescribing general measures for the control of dust in both residential and non-residential areas.
National Water Act, 1998 (Act No. 36 of 1998)	The National Water Act, 1998 (Act No. 36 of 1998) (NWA) provides the framework to protect water resources against over exploitation and to ensure that there is water for social and economic development, human needs and to meet the needs of the aquatic environment.
	The Act defines water source to include watercourses, surface water, estuary or aquifer. A watercourse is defined in the Act as a river or spring, a natural channel in which water flows regularly or intermittently, a wetland, lake or dam into which or from which water flows, and any collection of water which the Minister may declare a watercourse.
	Section 21 of the Act outlines a number of categories which require a water user to apply for a Water Use License (WUL) and Section 22 requires water users to apply for a General Authorisation (GA) with the Department of Water and Sanitation (DWS) if they are under certain thresholds or meet certain criteria. The list of water uses that require a WUL under section 21 are presented below:
	a) Taking water from a water resource;
	b) Storage of water;
	c) Impeding or diverting the flow of water in a watercourse;
	d) Engaging in a stream flow reduction activity;
	e) Engaging in a controlled activity;
	<li>f) Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit;</li>
	g) Disposing of waste in a manner which may detrimentally impact on a water resource;
	<ul> <li>Disposing in any manner of water which contains waste from, or which has been heated in. any industrial or power generation process;</li> </ul>
	i) Altering the bed, banks, course or characteristics of a watercourse;
	<li>Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people; and</li>
	k) Using water for recreational purposes.
	It is anticipated that a WUL will be required for the impeding or diverting of the flow of water in a watercourse and the altering of bed, banks, course or characteristics of a watercourse under Section 21(c) and (i) respectively as a result of the 4 wetland system present on the site.

APPLICABLE	
LEGISLATION	AND
POLICY	DESCRIPTION OF LEGISLATION

National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA) was promulgated in June 2004 within the framework of NEMA to provide for the management and conservation of national biodiversity. The NEMBA's primary aims are for the protection of species and ecosystems that warrant national protection, the sustainable use of indigenous biological resources, the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources. In addition, the NEMBA provides for the establishment and functions of a South African National Biodiversity Institute (SANBI).
	the country's biodiversity and conservation status of all listed threatened or protected species and ecosystems.
	The biodiversity assessment identifies Critical Biodiversity Areas (CBAs) which represent biodiversity priority areas which should be maintained in a natural to near natural state. The CBA maps indicate the most efficient selection and classification of land portions requiring safeguarding in order to meet national biodiversity objectives. As such, an Ecological Assessment will be undertaken as part of the EIA process.
	The Conservation of Agricultural Resources Act (No. 43 of 1983) (CARA) Regulations with regards to alien and invasive species have been superseded by the National Environmental Management: Biodiversity Act, 2004 (Act no. 10 of 2004) – Alien and Invasive Species (AIS) Regulations which became law on 1 October 2014.
	Specific management measures for the control of alien and invasive plants will be included in the Environmental Management Programme (EMPr)
Conservation of Agricultural Resources Act (No. 43 of 1983)	The Conservation of Agricultural Resources Act (No. 43 of 1983) (CARA) includes the use and protection of land, soil, wetlands and vegetation and the control of weeds and invader plants. This is the only legislation that is directly aimed at conservation of wetlands in agriculture.
	In terms of the amendments to the regulations under the CARA, landowners are legally responsible for the control of alien species on their properties. Various Acts administered by the DEA and DWS, as well as other laws (including local by-laws), spell out the fines, terms of imprisonment and other penalties for contravening the law. Although no fines have yet been placed against landowners who do not remove invasive species, the authorities may clear their land of invasive alien plants and other alien species entirely at the landowners cost and risk.
	Specific management measures for the conservation of agricultural resources will be included in the EMPr.
National Heritage Resource Act (Act No. 25 of 1999)	The National Heritage Resource Act (Act No. 25 of 1999) (NHRA) serves to protect national and provincial heritage resources across South Africa. The NHRA provides for the protection of all archaeological and palaeontological sites, the conservation and care of cemeteries and graves by SAHRA, and lists activities which require any person who intends to undertake to notify the responsible heritage resources agency and furnish details regarding the location, nature, and extent of the proposed development.
	In terms of the Section 38 of NHRA, any person who intends to undertake a linear development exceeding 300m in length or a development that exceeds 5000m2 must notify the heritage resources authority and undertake the necessary assessment requested by that authority.
	In the case of the proposed wind energy facility, a Heritage Impact Assessment (HIA) will be undertaken looking at Archaeology, Heritage and Palaeontology. The proposed project will be brought to the attention of SAHRA, as well as the provincial Heritage Resource Agencies, who will provide comment, and provide the required approval

APPLICABLE LEGISLATION AND POLICY	DESCRIPTION OF LEGISLATION
<u>Transkei Environmental</u> <u>Conservation Decree No. 9</u> of 1992	The Transkei Environmental Conservation Decree No. 9 of 1992 serves to consolidate and amend the laws relating to the conservation, management, protection and commercial utilisation of indigenous fauna and flora and their habitats on land, in fresh water and in the sea excluding national parks; to provide for the establishment of the Council for the Environment; to provide for the establishment and management of national wildlife reserves, protected natural environments, limited development areas, camping areas, hiking trails, water catchment areas and a coastal conservation area; to provide for the establishment of an environmental conservation fund; to provide for matters relating to the sea and the seashore; and to provide for incidental matters.
Eastern Cape Provincial Development Plan (2030)	The Eastern Cape Provincial Development Plan (2030) ("PDP") is derived from the NDP (2030) and it aims to provide creative responses to the Eastern Cape province's developmental challenges.
	According to the PDP, a sustainable future for the Eastern Cape rests on people-centred development to achieve five related goals:
	<ul> <li>An inclusive, equitable and growing economy for the province;</li> <li>An educated incovative and empowered eligranm;</li> </ul>
	<ul> <li>An educated, innovative and empowered cluzerity,</li> <li>A healthy population:</li> </ul>
	<ul> <li>Vibrant, equitably enabled communities; and</li> </ul>
	<ul> <li>Capable agents across government and other institutional partners committed to the development of the province.</li> </ul>
	These goals will be pursued with a focus on rural development to address serious inherited structural deficiencies – the legacy of apartheid has left the rural regions of the Eastern Cape underdeveloped, with an urban economy that is unduly stressed and experiencing slow growth.
	To realise the plan's development goals, the province has identified four catalytic flagships that will establish a sound foundation for other developments to flourish. These catalytic initiatives cut across sectors and integrate the efforts of many role-players.
	<ul> <li>— Ilima Labantu – the first catalytic flagship initiative is an agricultural development initiative that aims to revive the rural economy and encourage other areas of development in the province.</li> </ul>
	<ul> <li>Ematholeni! (children first) - the second catalytic flagship initiative aims to give all children a quality start to development and learning, providing a solid foundation for a future of equal opportunity. This foundation begins from the level of early childhood development.</li> </ul>
	<ul> <li>Infrastructure - the third catalytic flagship initiative focuses on the provision and maintenance of infrastructure for spatially equitable social and economic development. This includes social infrastructure (human settlements, public institutions) and economic infrastructure (irrigation systems, factories, production technology, equipment and systems, as well as information and communication technology).</li> </ul>
	<ul> <li>Building human and institutional capabilities for local development action -the fourth catalytic flagship initiative aims to build human and institutional capabilities for inclusive and meaningful local development action.</li> </ul>
O.R. Tambo District Municipality Spatial Development Framework (SDF)	In June 2012, the O.R. Tambo DM Council adopted a reviewed Spatial Development Framework (SDF). This document was directed and overseen by Consulting Group Pty (Ltd). The SDF seeks to (1) guide the spatial distribution of current and future desirable land uses/activities within the municipality and (2) give physical effect to the vision, goals and objectives of the municipal IDP. In effect, the SDF represents a "picture" of where the municipality wishes to direct its efforts in facilitating development. As such, the primary purpose of the SDF is to guide all decisions of the municipality relating to the use, development and planning of land and, at the District level, should guide and inform:
	- The identification of major movement routes;

APPLICABLE LEGISLATION AND POLICY	DESCRIPTION OF LEGISLATION
	<ul> <li>The identification of Special Development Areas for specific interventions either to facilitate and/or improve local economic development opportunities, or to address special instances of need; and</li> </ul>
	<ul> <li>The conservation of both natural and built environments.</li> </ul>
	In so doing, it is hoped that the SDF will become a useful tool whereby other role-players in different spheres of government, non-governmental agencies and the private sector would be better informed as to how best to direct their investment and development programme activities in the District to ensure greater coordination and impact in investment and spending. As such, the SDF attempts to ensure that public and private sector investment and activities are located in areas that can best:
	Promote economic generation potential;
	<ul> <li>Maximise opportunities for the poor;</li> </ul>
	<ul> <li>Improve accessibility;</li> </ul>
	<ul> <li>Minimise the cost of physical expansion;</li> </ul>
	<ul> <li>Ensure that people are well located to opportunities and amenities; and</li> </ul>
	<ul> <li>Promote a sustainable environment.</li> </ul>
	In addition to the above general purpose, it is also the intention of an SDF to provide the basis to inform the development of a coherent land-use management system. As the SDF provides a broad framework for land use planning, it also includes Land Use Management Guidelines that are to be used to guide the municipality in the management of land and to facilitate the land management process. The SDF thereby further informs development decisions and attempts to strengthen the framework in an attempt to boost investor confidence to facilitate both public and private spending. The SDF identifies a number of Nodes and Corridors in each of the local municipalities.
King Sabata Dalindyebo Local Municipality IDP (2016/17)	The main purpose of the IDP is to foster more appropriate service delivery by providing the framework for economic and social development within the municipality. In doing so it contributes towards eradicating the development legacy of the past, operationalises the notion of developmental local government and foster a culture of co-operative governance amongst the three spheres.
	IDP Objectives
	Integrated development planning is a process whereby municipalities prepare strategic development plans for a five-year period. IDPs are the main platform through which sustainable provision of service delivery could be achieved. They intend to promote co-ordination between local, provincial and national government. Once adopted by Council, these plans should inform planning, decision making, budgeting, land management, promotion of local economic development, and institutional transformation in a consultative systematic and strategic manner.
	The main objective of developing an IDP is the promotion of developmental local government, through the following:
	<ul> <li>Institutionalising performance management in order to ensure meaningful, effective and efficient delivery (monitoring, evaluation and review), speed up service delivery through making more effective use of scarce resources;</li> </ul>
	<ul> <li>Enabling the alignment and direction of financial and institutional resources towards agreed policy objectives and programmes; and</li> </ul>
	<ul> <li>Ensure alignment of local government activities with other spheres of development planning through the promotion of intergovernmental co-ordination.</li> </ul>
	The IDP also aims to:
	<ul> <li>Create a higher level of focus and thereby improve the strategic nature of the</li> </ul>
	<ul> <li>document;</li> </ul>
	<ul> <li>Align this strategic document with the limited financial and human resources;</li> </ul>

APPLICABLE LEGISLATION POLICY	AND	DESCRIPTION OF LEGISLATION
		<ul> <li>Align the IDP with the activities of the municipality's departments and other social partners in other spheres of government; and</li> <li>Align the IDP with the various sector and management plans of the municipality.</li> </ul>

# **3 SCOPING METHODOLOGY**

The scoping process was initiated in accordance with Appendix 2 of GNR 326 pertaining to applications subject to an S&EIR process.

## 3.1 APPLICATION

The application phase will consist of the completion of the appropriate application form by the EAP and the Proponent as well as the subsequent submission and registration of the application for EA with the DEA.

<u>A DEA reference number (14/12/16/3/3/2/1064) was allocated to this application after submission and appears</u> this FSR and all subsequent official S&EIR related correspondence with the authorities and the public.

The FSR was submitted to the DEA within 44 days of receipt of the application by the DEA (8 June 2018).

#### 3.1.1 S&EIR PROCESS AND PHASING

The S&EIR process consists of various phases with associated timelines as defined in GNR 326. The process can generally be divided into four main phases, namely; (i) an unregulated Pre-application Phase, (ii) an Application and Scoping Phase (current phase), (iii) an Impact Assessment Phase and (iv) Authorisation and Appeal Phase, as indicated in. The S&EIR process is shown in **Figure 3-1**.

The main objectives of the phases can be described as follows:

- Pre-Application Phase:
  - Undertake consultation meetings with the relevant authorities to confirm the required process and general approach to be undertaken;
  - Identify stakeholders, including neighbouring landowners/residents and relevant authorities;
  - Compile a DSR describing the affected environment and present an analysis of the potential environmental issues and benefits arising from the proposed project that may require further investigation in the Impact Assessment Phase;
  - Develop draft terms of reference for the specialist studies to be undertaken in the Impact Assessment Phase; and
  - Inform stakeholders of the proposed project, feasible alternatives and the S&EIR process and afford them the opportunity to register and participate in the process and identify any issues and concerns associated with the proposed project.
- Application and Scoping Phase
  - Compile and submit application forms to the competent authority and pay the relevant application fees;
  - Incorporate comments received from stakeholders during the pre-application phase into the DSR;
  - Should significant amendments be required, release the updated FSR for a 30-day comment period to
    provide stakeholders with the opportunity to review the amendments as well as provide additional input
    if required; and
  - Submit the finalised FSR, following the consultation period, to the relevant authorities, in this case DEA, for acceptance/rejection.
- Impact Assessment Phase
  - Continue to inform and obtain contributions from stakeholders, including relevant authorities, stakeholders, and the public and address their relevant issues and concerns;
  - Assess in detail the potential environmental and socio-economic impacts of the project as defined in the FSR;
  - Identify environmental and social mitigation measures to avoid and/or address the identified impacts;

- Develop and/or amend environmental and social management plans based on the mitigation measures developed in the EIA Report; and
- Submit the Environmental Impact Assessment Report (EIAR) and associated Environmental Management Programme (EMPr) to the competent authority to undertake the decision making process.
- Authorisation and Appeal Phase
  - DEA to provide written notification of the decision to either grant or refuse EA for the proposed project;
  - Notify all registered I&APs of the decision and right to appeal.





## 3.2 BASELINE ENVIRONMENTAL ASSESSMENT

The property where the development will occur is owned by the surrounding local community and has been the subject of a number of specialist assessments in support of a parallel planning and statutory approvals process being undertaken for the proposed CDC SEZ development. The specialist studies from this process have been utilised to support the CDC SEZ statutory application process. Therefore, the description of the baseline environment has been compiled through a combination of desktop reviews of the existing specialist reports from the CDC process and site investigations. Desktop reviews made use of available information including existing reports, aerial imagery and mapping.

## 3.3 IDENTIFICATION AND EVALUATION OF POTENTIALLY SIGNIFICANT IMPACTS

The main issues and potential impacts associated with the proposed project were determined at both a desktop level based on existing information as well as field work and specialist input. The following methodology was used:

- Identify potential sensitive environments and receptors that may be impacted on by the proposed project;
- Identify the type of impacts that are most likely to occur (including cumulative impacts);
- Determine the nature and extent of the potential impacts during the various developmental phases, including, construction, operation and decommissioning;
- Identify potential No-Go areas (if applicable); and
- Summarise the potential impacts that will be considered further in the EIA phase through detailed specialist studies.

Appendix 2 of GNR 326 requires the identification of the significance of potential impacts during scoping. To this end, an impact screening tool has been used in the scoping phase (**Table 3-1**). The screening tool is based on two criteria, namely probability; and, consequence, where the latter is based on general consideration to the intensity, extent, and duration.

The scales and descriptors used for scoring probability and severity are detailed in **Table 3-2** and **Table 3-3** respectively.

CONSEQUENCE SCALE					
PROBABILITY		1	2	3	4
SCALE	1	Very Low	Very Low	Low	Medium
	2	Very Low	Low	Medium	Medium
	3	Low	Medium	Medium	High
	4	Medium	Medium	High	High

#### CONSEQUENCE SCALE

Significance Screening Tool

Table 3-1:

#### Table 3-2: Probability Scores and Descriptors

SCORE	DESCRIPTOR
4	Definite: The impact will occur regardless of any prevention measures
3	Highly Probable: It is most likely that the impact will occur
2	Probable: There is a good possibility that the impact will occur
1	Improbable: The possibility of the impact occurring is very low

 Table 3-3:
 Consequence Scores and Descriptors

SCORE	NEGATIVE	POSITIVE
4	<b>Very severe</b> : An irreversible and permanent change to the affected system(s) or party(ies) which cannot be mitigated.	<b>Very beneficial</b> : A permanent and very substantial benefit to the affected system(s) or party(ies), with no real alternative to achieving this benefit.
3	<b>Severe</b> : A long term impacts on the affected system(s) or party(ies) that could be mitigated. However, this mitigation would be difficult, expensive or time consuming or some combination of these.	<b>Beneficial</b> : A long term impact and substantial benefit to the affected system(s) or party(ies). Alternative ways of achieving this benefit would be difficult, expensive or time consuming, or some combination of these.
2	<b>Moderately severe</b> : A medium to long term impacts on the affected system(s) or party (ies) that could be mitigated.	<b>Moderately beneficial</b> : A medium to long term impact of real benefit to the affected system(s) or party(ies). Other ways of optimising the beneficial effects are equally difficult, expensive and time consuming (or some combination of these), as achieving them in this way.
1	<b>Negligible</b> : A short to medium term impacts on the affected system(s) or party(ies). Mitigation is very easy, cheap, less time consuming or not necessary.	<b>Negligible</b> : A short to medium term impact and negligible benefit to the affected system(s) or party(ies). Other ways of optimising the beneficial effects are easier, cheaper and quicker, or some combination of these.

The nature of the impact must be characterised as to whether the impact is deemed to be positive (+ve) (i.e. beneficial) or negative (-ve) (i.e. harmful) to the receiving environment/receptor. For ease of reference a colour reference system (**Table 3-4**) has been applied according to the nature and significance of the identified impacts.

#### Table 3-4: Impact Significance Colour Reference System to indicate the nature of the impact

#### NEGATIVE IMPACTS (-VE)

POSITIVE IMPACTS (+VE)

Negligible	Negligible
Very Low	Very Low
Low	Low
Medium	Medium
High	High

## 3.4 STAKEHOLDER ENGAGEMENT

Public participation comprises a series of inclusive and culturally appropriate interactions aimed at providing stakeholders with opportunities to express their views, so that these can be considered and incorporated into the S&EIR process. Effective public participation requires the prior disclosure of relevant and adequate project information to enable stakeholders to understand the risks, impacts, and opportunities of the proposed project.

The objectives of the public participation process can be summarised as follows:

- Identify relevant individuals, organisations and communities who may be interested in or affected by the Proposed Project;
- Clearly outline the scope of the Proposed Project, including the scale and nature of the existing and proposed activities;
- Identify viable proposed project alternatives that will assist the relevant authorities in making an informed decision;
- Identify shortcomings and gaps in existing information;
- Identify key concerns, raised by Stakeholders that should be addressed in the subsequent specialist studies;
- Highlight the potential for environmental impacts, whether positive or negative; and
- To inform and provide the public with information and an understanding of the proposed project, issues and solutions.

In accordance with the NEMA, GNR 326, Chapter 6, the following activities have taken place or are proposed to take place within the FSR review period or beyond.

#### 3.4.1 I&AP CONSULTANTS

The public participation process must include consultation with (1) the competent authority, (2) every state department that administers a law relating to the matter, (3) all organs of state which have jurisdiction in respect of the activity to which the application relates, (4) all potential, or, where relevant, registered interested and affected parties. In order to satisfy this requirement, the EAP will undertake the following consultations:

- Competent Authority DEA is the competent authority related to this application although the project is located in the EC since the applicant is a parastatal. The EAP undertakes to engage in on-going communications with the DEA (preferably directly with the allocated case officer).
- All organs of state which have jurisdiction in respect of the activity to which the application relates:
  - <u>National Level: The Department of Agriculture, Forestry and Fisheries (DAFF) has been added to the commenting authorities for the FSR review period.</u>

- <u>National Level: The DEA Biodiversity Conservation Unit has been added to the commenting authorities</u> <u>following a request from the DEA Integrated Environmental Authorisations section for the FSR review</u> <u>period.</u>
- <u>National Level</u>: The South African Heritage Resources Agency has been added to the commenting authorities for the FSR review period;
- Provincial Level: Given that the activity is located within the EC Province, the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) will form a commenting authority during the process.
- Local Level: (OR Tambo District Municipality and King Sabata Dalindyebo Local Municipality) The KSD LM is the local authority governing the proposed project area. The Municipality is responsible for managing the various wards which make up the proposed project area and surrounds. The project area is in Ward 13. The ward councillor will be a primary target for the proposed project in an effort to communicate the project to as greater stakeholder database as possible, especially considering the local neighbours will be the most affected stakeholder grouping.
- All potentially registered I&APs The property where the project is to take place is owned by the local community and the CDC provided the EAP with a stakeholder database of all the relevant personnel. The database will be updated following any stakeholder request to be registered. A search for the title deeds will be done on the WinDeed website to confirm landowners in the area. The use of site notices, Notification Letters, email and sms will be used as methods in which to reach potentially interested and affected parties.

The latest stakeholder database is included within this report as Appendix C.

All registered I&APs, which have a direct effect on the proposed project or are directly or indirectly impacted by the proposed project, have the right to lodge a comment/question on the project (until such time that the appeals process comes to a close).

### 3.4.2 NOTIFICATION OF POTENTIAL I&APS

In accordance with GNR 326 Section 41(2)(a-b) site notices were developed (see **Appendix D**) and placed at the following strategic places:

- Site Boundary Fence;
- Umtata High School;
- Mthatha Library; and
- King Sabata Dalindyebo Local Municipality.

Table 3-5 below shows details and proof of display.

#### Table 3-5: Site Notice Locations

		PHOTOGR	RAPHS
LOCATION	<u>CO-ORDINATE</u>	Zoomed In	Landscape
<u>Site Boundary</u> <u>Fence</u>	<u>31°33'18.46"S,</u> <u>28°40'12.85"E</u>	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	
<u>Umtata High</u> <u>School</u>	<u>31°35'30.48"S,</u> 28°47'9.62"E	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text><text><text><text></text></text></text></text></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	

<u>Mthatha Library</u>	<u>31°35'20.36"S,</u> <u>28°47'12.86"E</u>	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	
<u>King Sabata</u> <u>Dalindyebo</u> <u>Local</u> <u>Municipality</u>	<u>31°35'18.82"S,</u> <u>28°47'16.20"E</u>	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text><text><text><text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text></text></text></text></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	

The site notice served to inform the occupiers of the land along with the newspaper advert and existing stakeholder database.

In accordance with GN. R 326 41(2)(c) of Chapter 6 an advert was placed in a newspaper, the Daily Dispatch on 25 April 2018. There are many local languages spoken in the area with English being is considered a universal language; therefore, the newspaper advert will be published in English only. A copy of the advert is included **Appendix D**. Proof of the advert publication will be included in the FSR.

Should the EAP identify an affected stakeholder, and be made aware of his/her existence by the ward councillor, efforts will be made to ensure his/her participation in the stakeholder engagement process [as required by Section 41(2) (e) of Chapter 6].

In addition to the minimum requirements outlined in GNR 326, the EAP undertook the following:

 Distribution of notification letters to the stakeholders via email and bulk sms (where contact data was available).

Any stakeholder who submitted a comment during the course of the process was automatically registered on the project specific stakeholder database. Comments received during the DSR review period have been included in the FSR as part of the comments and responses report (CRR) in **Appendix D** and submitted to the competent authority.
# 3.4.3 PUBLIC REVIEW OF DRAFT SCOPING REPORT

The DSR was placed on public review for a period of 30 days from **24 April 2018** to **28 May 2018**, at the Mthatha Library and Umtata High School. The report was also made available on the WSP website (<u>http://www.wsp-pb.com/en/WSP-Africa/What-we-do/Services/All-Services-A-Z/Technical-Reports/</u>). The website report was not accompanied by appendices due to report size restrictions, however, they were available on request from the EAP.

All registered stakeholders and authorising/commenting state departments were notified of the public review period as well as the locations of the DSRs via email and bulk sms. The abovementioned plan, for notification and provision of reports, will also be utilised for the review of the FSR as well as the EIAR once the EIAR Phase has commenced.

### 3.4.4 COMMENT AND RESPONSE REPORT

All concerns, comments, viewpoints and questions (collectively referred to as 'issues') have been documented and responded to adequately in a CRR, which has been attached as **Appendix D** of this FSR. The CRR records the following:

- List of all issues raised;
- Record of who raised the issues;
- Record of where the issues were raised;
- Record of the date on which the issue was raised; and
- Response to the issues.

### 3.4.5 SUBMISSION AND DECISION-MAKING

The DEA will be allocated 43 days to review the <u>FSR</u>. The <u>FSR</u> will be placed on stakeholder review for a reasonable time period during the DEA's final review and decision-making process. The delegated competent authorities must within this specified timeframe, issue a decision on whether to proceed onto the next phase, the EIAR phase.

# **4 NEED AND JUSTIFICATION**

The SEZ will open opportunities for job creation during construction and operational phases. Given the existing limited economic activities in the Wild Coast region, it anticipated that at least 60% of the required plant and machine operators can be sourced locally and they would already be trained and have gained experience. However, a likely balance of 40% of the required plant and machine operators will need to be trained. Typically, it takes three months to train and license an operator and, in the case of overhead cranes, heavy equipment and interlink trucks, it will take approximately six months. However, what ameliorates the situation in the Wild Coast region, and even gives an advantage, is that it is an area where there are many retrenched mineworkers and many of these workers have plant and machine operating skills developed to a high level.

It is expected that the total economy-wide value-add for the EC Province will increase by R826.4 million per annum, resulting from the development of the WCSEZ. In summary, the cumulative contribution of the proposed WCSEZ to the EC economy is expected to be R28.4 billion over a period of 30 years.

Other strengths of the proposed project include:

- Availability of primary sector for agro-processing industry in the Wild Coast region;
- Land available for development;
- Existing Airport infrastructure for logistics;
- Equidistance to local high growth markets such as Durban in the North Easterly direction and Buffalo City/Nelson Mandela Bay in the South Westerly direction;
- Excellent ease of doing business relative to other African countries;
- Strong industrial potential and logistics relative to other underdeveloped areas;
- Availability of potential labour for semi-skilled and unskilled Human Capital;
- Relatively cheap lifestyle compared to the rest of the country;
- Fulfils the goals of the KSDLM spatial development framework (SDF) which seeks to access land around the towns and settlements for formalised economic development including retail, office and commercial uses;
- Closer to the main roads, R61 and N2 for logistics linkages; and
- There is political will in the Province to foster the development of the WCSEZ.

Furthermore, the opportunities presented created by the project include:

- Develop WCSEZ into a state of the art zone, supplying larger markets within the agro-processing, Services and Tourism Sectors;
- Service a highly lucrative market through the existing infrastructure base in South Africa;
- Profitability and viability of projects and WCSEZ;
- Stimulate regional and national economic activity;
- Increase local employment through skills development and skills transfer initiatives;
- Strengthen South Africa's industrial capabilities;
- Improve economic outlook of the EC Province and the country; and
- Create employment and business opportunities for citizens of the WC Region and EC generally.

In addition to the reasons above, it must also be noted that the O.R. Tambo District Municipality Council has endorsed the Wild Coast SEZ a number times in its Strategic Planning and IDPs. It currently has a draft District Development Plan Vision 2030 that again integrates the SEZ.

# **5 PROJECT DESCRIPTION**

# 5.1 LOCATION OF THE PROPOSED DEVELOPMENT

The criteria for selecting a suitable location for the SEZ are based on those characteristics required for the development of a commercial node such as an Agri-park, SEZ and other sectoral nodes. The main characteristics required are as follows:

- a) Proximity to residential areas, being an industrial development node a radius of five to ten kilometres was used;
- b) Demographics should favour a skilled to semi-skilled and employable age population of between 18 and 55 years old;
- c) Potential economic opportunities;
- d) Accessibility to various modes of transport is recommended, i.e. rail, port, aerodrome and road for the transportation of raw materials and finished goods to markets;
- e) Quality bulk infrastructure to support the identified economic cluster. Bulk infrastructure includes high voltage (HV) electricity, water, sewerage, roads and storm water management and Information and Communications Technology (ICT);
- f) Favourable environmental conditions, not within designated biodiversity areas and with accept space envelop;
- g) Relatively flat, with good drainage and geologically sound;
- h) Physical land requirement of approximately 100-500 ha, preferably Municipal owned and zoned for industrial purposes; and
- i) Alignment to current development strategies.

The pre-feasibility study identified the area around the Mthatha Airport as meeting the above criteria. However, land ownership in this area is very sensitive and the traditional authorities (chiefs) believe that they own the land. The traditional structures and local authorities have been identified and negotiations to secure the land for Phase 1 of the WCSEZ have progressed as far as achieving an agreement. There already is a community structure elected to deal with land issues and future developments in this area.

The land earmarked for Phase 1 of the WCSEZ is deemed to be within the Mthatha Airport precinct and was therefore believed to be under the ownership of government. While this may be true to some extent, in that the Minister of the National Department of Transport (DoT) is deemed to have custodianship of all Airport land, in actual fact the land has not been vested in the National Department of Public Works (DPW) because it was never surveyed and, as such, has no Surveyor General Diagrams. Consequently, while in practice the EC DoT is undertaking developments on the land, vesting from DPW is still outstanding.





The reason for the land not having Surveyor General Diagrams is apparently that there are "quit rental" issues outstanding and, until these are sorted out, it is likely to be difficult to obtain such diagrams.

A further complication is that the claim for restitution of land rights, logged for Mthatha Dam and Airport and the Lutshaba Nature Reserve by the Kwa-Link Ncise Community, has been accepted by the Commission on Restitution of Land Rights and the claim was subsequently gazette as shown in **Figure 5-2**.

```
38803
                       GOVERNMENT GAZETTE, 22 MAY 2015
                              NOTICE 452 OF 2015
   GENERAL NOTICE IN TERMS OF THE RESTITUTION OF LAND RIGHTS ACT, 1894
                                   (ACT NO.22 OF 1994)
   Notice is hereby given in terms of section 11 (1) of the Restitution of Land Rights Act, 1994
   (Act No, 22 of 1994 as amended) that a claim for restitution of land rights on:
   REFERENCE
                          612/2/D/963/010/12
   CLAIMANT
                          Kwili Caleb Gxaxisa (Upper Ncise Community Claim)
   PROPERTY
                          Mthatha Airport
Mthathal OR Tambo
   DISTRICT
   MEASURING
                          428 hecatares
   DEED OF TRANSFER
DATE SUBMITTED
                         07/01/1998
   BONDHOLDER
   CURRENT OWNER
                         Department of Transport
   Has been submitted to the Regional Land Claims Commissioner and that the Commission on
   Restitution of Land Rights will investigate the claim in terms of the provisions of the Act in
   course. Any person who has an interest in the above-mentioned land is hereby invited to
   submit, within sixty (60) days from the publication of this notice; any comments/information t
   The Regional Land Claims Commissioner
   Department of Rural Development and Land Reform
   Land Restitution Support Office: Eastern Cape
   PO Box 1375
   East London
   5200
   Mr. LH. Maphuthe
Regional Land Claims Commissioner
Figure 5-2:
               Government gazette extract
```

The extent of this particular land claim is 428 ha covering the entire Airport Precinct including the runway. The Mthatha Airport land claim extent is shown in **Figure 5-3** below.



#### Figure 5-3: Mthatha Airport land claim extent

The Ncisa and Fairfield community land claim extent is shown in Figure 5-4 below.



Figure 5-4: Ncisa and Fairfield land claim

The implication is that the Regional Land Claims Commissioner for the EC is in the process of finalising the claim, having received no objections/comments following a 60 day public process that has now elapsed. Upon approval of this claim by the Minister of Rural Development and Land Reform, the land will be transferred to a holding entity established as a Communal Property Association in terms of the Communal Property Association Act (Act No.28 of 1996). This means that, subsequent to the transfer process, negotiations must be held with the community to discuss community benefits accruing from the use of their land.

While it is not inconceivable that the land cannot be returned to the community because of its strategic nature and the amount of investment that has gone into land improvements, the reality is that, whatever the outcome, the process now being followed will undoubtedly delay obtaining ownership of or control over the land which is essential for the designation of the WCSEZ on this site.

The WCSEZ Project Management Office (PMO) established a working committee that met on 26 August 2015 and also on 10 September 2015, to find an expedient way of dealing with the land claim. Furthermore, the lack of integration of the various plans for the airport site was becoming a risk, as a common approach needs to be forged to integrate these various plans being developed for the airport site by the EC DoT, the WCSEZ and the ORTDM. The following resolutions were taken at the last meeting:

- i. The Surveyor General and EC (DoT) to map out the extent of the aviation related site as well as the non-aviation extent considering the noise contour zones. This is with a view to returning the non-aviation land extent to the community for their negotiation with potential developers;
- ii. The exhumation of burial sites and erection of a monument must be expedited;
- iii. Establishment of underlying "quit rent" agreements and subsequent survey of the Airport land;
- iv. Urgent community consultations around proposed projects on the Airport land and discussion of possible benefits' models; and
- v. Urgently report to the EC Provincial Cabinet Executive Committee on alternatives including the relocation to state land or re-packaging of the Project as a Sector Development Zone (Agro-industrial Park) or under another project such as the emerging Agri-park Cluster project.

# 5.2 PROPOSED PROJECT DEVELOPMENT ACTIVITIES

The purpose of this <u>FSR</u> focuses on the clearing of the land as well as the construction of required services and infrastructure to serve the SEZ when it is operational.

## 5.2.1 INFRASTRUCTURE FOR SEZ PHASE 1

It is a common cause that coherent planning, the provision of infrastructure and the delivery of municipal services can enhance, or prevent, the delivery of the WCSEZ in the Mthatha area, where Phase 1 will be only the initial development. Infrastructure development and associated utilities in the WCSEZ will be done mainly in response to the needs and requirements of investors from the agro-processing sector. In this section, infrastructure includes physical water supply, waste water collection, electricity supply, roads, solid waste disposal and ICT.

The current proposal is to situate the WCSEZ in the vicinity of the existing Mthatha Airport. Mthatha Airport is situated 15 km west of the city, some 200 m off the R61. The airport is therefore on the outskirts of Mthatha and is surrounded by Mthatha Dam and several rural villages.

Mthatha Airport had been receiving little attention until the 2010 Soccer World Cup and that major event was the catalysis for the extension and upgrading work. This was done very much as a one-off development and there was not much consideration of other development work in the area.

#### POTABLE, SEWER AND STORM WATER PIPELINES

The project will need to provide internal services to future tenants in the form of potable water, sewer and storm water reticulation. This will entail the establishment of potable water, sewer and storm water pipelines within the WCSEZ to service the tenants. The tenant individual connections to tie into the potable, sewer and storm water

pipelines will be determined when the individual specific activities are applied for as it will be based on the individual facility designs.

#### ACCESS ROADS

The project intends to provide access roads to be used by the future tenants of the WCSEZ. The internal roads within the WCSEZ are anticipated to be wider than 8 m. These will be developed following the clearance of the WCSEZ and will be designed to fit in with the proposed power lines, pipelines for potable water, sewer lines and storm water lines. The pro

#### ELECTRICITY SUPPLY

The electrical supply to the airport is provided by Eskom and not the KSDLM. That supply is at 22 kV and was planned solely to serve the airport. However, such a supply can be considered a fairly strong supply, which ultimately could support a demand of around 15/20 MW and hence accommodate Phase 1 of the WCSEZ. The airport is 10 km away from the nearest existing Municipal electrical infrastructure, so it would be a challenge for the Municipality to extend the electrical infrastructure to the airport. Also, the existing Municipal electrical infrastructure is close to maximum demand. It is therefore expected that any further expansion of the electricity service would remain the responsibility of Eskom. There are no current problems with the maintenance of the Eskom electrical supply.

The KSDLM would prefer to be the electricity service provider to the WCSEZ but this requires mutual agreement by the parties. There is an Eskom 132 kV line close to the location of the WCSEZ and that line should have sufficient capacity to service the further Phases of the WCSEZ but note the comment in the previous sentence.

The concept plan is showing the roads, pipelines and electrical supply lines is indicated in Figure 5-5 below.



Figure 5-5: Services Layout Map

# 5.2.2 PROPOSED FACILITIES IN PHASE 1

The concept plan for Phase 1 is an agro-processing hub adjacent to Mthatha Airport. The proposed initial (Phase 1) land take for the WCSEZ is 226 ha, with approximately 143 ha allocated for the 14 types of facilities identified (110 ha) plus further land (32 ha) required for roads, servitudes for municipal services and open spaces. The existing infrastructure is shown in **Figure 5-6** below.



#### Figure 5-6: Existing infrastructure

An investigation was carried out by Aurecon on the ground as well as through interviews and discussions with local municipal infrastructure officials, the Municipality's planners and Eskom. The current state of the existing infrastructure would not be adequate for the proper development of the WCSEZ in the Airport's environs. However, the O.R. Tambo District Municipality (ORTDM), King Sabata Dalindyebo Local Municipality (KSDLM) and the South African National Roads Agency Limited (SANRAL) have plans to upgrade services in the Airport area.

# 5.3 BASIC PROCESS DESCRIPTION

The purpose of this <u>FSR</u> is to support the establishment and clearance of the WCSEZ but not aimed at any specific individual activity that will be conducted on the WCSEZ as well as the construction of access roads, power lines, construction of potable water, sewer and storm water pipelines.

The entire WCSEZ development will be limited to 500 ha of mixed development precinct that will be developed in two phases. The first phase (226 ha) will comprise sector development industrial cluster that will include a hotel facility aimed at supporting both the agriculture sector and later for tourism. The development of a hotel will be for the commercial sector and not for the DTI's account.

The remainder of the development will comprise of mixed development of industrial platforms, accommodation and commercial platforms and will mainly be financed by private sector.

The first phase will potentially comprise the following:

- Fourteen (14) sector development projects for Phase 1 mainly in the agro-processing sector. These will
  include an innovation platform to house SMME agro-processors as well as research and development. The
  14 priority projects include:
  - A tunnel/hydroponic farming project twenty hectares in extent;
  - A vegetable processing and packaging facility three hectares in extent;
  - A fresh water fish processing and packaging facility three hectares in extent;
  - A meat processing facility three hectares in extent;
  - Cold storage facilities suitable for meat, vegetables and fruit eight hectares in extent;
  - A fruit processing and packaging facility three hectares in extent;
  - An essential oil processing facility three hectares in extent;
  - A logistics and distribution facility two hectares in extent;
  - Maize storage facilities and silos ten hectares in extent;
  - A maize milling facility five hectares in extent; (this will take into consideration existing mills in the area);
  - A dairy processing facility with warehousing seven hectares in extent;
  - A wool sourcing (inclusive of sorting and classing) facility five hectares in extent;
  - A shared administrative and services facility two hectares in extent, and;
  - A multi-user agro-processing incubator aimed at smaller and seasonal producers four hectares in extent with innovation and research facilities for the development of new products.
- A construction period of twelve (12) years, 2018 2030 is proposed for Phase 1 of the WCSEZ;
- The WCSEZ is estimated to create about 3 313 jobs during construction and 1 840 operational jobs, which will be people working in the SEZ precinct. The total economy wide, direct, indirect and induced jobs are estimated at 12 626;
- Land around the Mthatha Airport of approximately 226 ha (gross) has been identified for Phase 1 of the WCSEZ; and
- The Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) is anticipated to be the owner (shareholder) of the SEZ Entity of Phase 1.

The value proposition of the WCSEZ is to provide a competitive and highly efficient cluster that positions itself as the leading location for agro-processing, and business services activities within South Africa, in response to investor demand. This value proposition will be achieved through active investment promotion in the targeted sectors and the construction of bulk enabling infrastructure to serve the WCSEZ. Investment promotion will be complemented by ensuring an ease of doing business in the WCSEZ through the provision of one-stop-shop services, incentives, innovation platform, a competitive and transparent market environment, and timeous and efficient responses to investors' market requirements. The Wild Coast is an ideal location for the development of a SEZ because of the extent of land available in close proximity to Mthatha Airport and national roads. The Wild Coast Region is also competitively located between high growth markets such as Durban in a North Easterly direction and Buffalo City/Nelson Mandela Bay in a South Westerly direction.

The SEZ Operator is required to ensure that investors locating in the Zone are commercially viable, thus providing a sustained income for the WCSEZ. The EC DEDEAT, in partnership with the DTI, mandated the PMO of the CDC to assist in the development of a feasibility study and business plan for the proposed WCSEZ.

The final product of the project is shown in the concept plan in **Figure 5-7** below.



Figure 5-7: Land Use and Access Roads Concept Plan

# **6 IDENTIFICATION OF ALTERNATIVES**

An S&EIR process is to include an analysis of reasonable alternatives to the proposed project such as alternative sites, routes, engineering options, layouts and technologies in terms of their potential Environmental and Social impacts, the feasibility of avoiding these impacts and where this is not possible the approach to mitigating the identified impacts.

There are two types of project alternatives, these are:

- Concept Level Alternatives which relate to site, technology and process alternatives; and
- Detailed Level Alternatives which related to working methods and mitigation measures.

The higher level concept alternatives are addressed in this section as detailed level alternatives are addressed through the identification and implementation of mitigation measures. The objective of the comparison of alternatives is to outline how the Project represents an optimised design that is technically and financially feasible whilst minimising overall environmental and social impacts. As part of the alternatives assessment it is important to consider the proposed project not being implemented and therefore the 'Do Nothing' or 'No Go' alternative. The concept level alternatives are presented in this section below.

# 6.1 NO-GO ALTERNATIVE

The no-go alternative for this project would entail continuation of the status quo. The following negative impacts would result:

- There will be no economic boost in the region which would have fed into the agro-processing, services and tourism sectors;
- The anticipated job and skills development opportunities the project presents will not be generated as the project would have sourced 60% of the required plant and machine operators locally;
- There will be a derailment in the proposed strategies for the O.R. Tambo District Municipality's Strategic Planning and IDPs;
- There will be underutilisation of the available land which could otherwise be productive and beneficial to the local communities as they are the landowners; and
- There will be a derailment in the intended progress as mandated by strategic projects as spelled out by the NDP.

Although the no-go alternative sees the continuation of the status quo and leads to missed opportunities, there are positive impacts it provides. These include:

- All negative impacts discussed in Section 8 of this report are avoided if this alternative is choses;
- There will be a conservation of the three wetland bodies and the related ecosystems observed on the site;
- <u>There will be a preservation of the hydrology and geohydrological nature of the site;</u>
- There will be a protection on the related environmental sensitivities on the site including the biodiversity; and
- There will be a potential to preserve any heritage and palaeontological resources in the area as the site is flagged as a high risk area for palaeontological resources.

# 6.2 LOCATION

Six land parcels situated in close proximity to the Mthatha Airport were identified as potential areas of development for inclusion in the SEZ. Of the six land parcels, two have been selected as focus areas for Phase 1 of the WCSEZ and covers a combined are of approximately 226 ha. The two land parcels are situated adjacent to the Mthatha Airport. The entire WCSEZ development will be limited to 500 ha of mixed development precinct that will be developed in two phases.

# 6.2.1 SEZ LAND SELECTION CRITERIA

The criteria used for selecting a suitable location for the WCSEZ are based on those characteristics required for the development of an industrial node; SEZ's are a type of sectoral node. The main characteristics required are as follows:

- a) Proximity to residential areas, being an industrial development node a radius of five to ten kilometers was used;
- b) Demographics should favour a skilled to semi-skilled and employable age population of between 18 and 55 years old;
- c) Potential socio-economic opportunities;
- d) Accessibility to various modes of transport, i.e. rail, sea port, airport and road for the transportation of raw materials (agricultural produce) and products to markets;
- e) Quality bulk infrastructure to support the identified economic cluster; quality in this context means fitfor-purpose and assessed on whole life with planned maintenance. Bulk infrastructure includes High Voltage electricity, water, sewerage, roads and storm water management and ICT;
- f) Favourable environmental conditions, meaning not within designated biodiversity areas and acceptable air quality envelop;
- g) Relatively flat, with good drainage and geologically sound; and
- h) Physical land requirement of approximately 100-500 hectares, preferably government owned and already zoned for industrial purposes.



The proposed Phase 1 project area is indicated in yellow in Figure 6-1 below.

#### Figure 6-1: Proposed project area

Feasibility studies were conducted and after evaluation of land around the districts, the land from the Mthatha Airport which is non-aviation land (indicated in yellow) was identified for Phase 1 of the WCSEZ.

The key characteristics of this locality are:

a) Proximity to the Airport, thus potential for future trans-shipment hub for high value or short shelf-life produce;

- b) Proximity to high accessibility transport route, R61 connecting to Queenstown and N2;
- c) The land claimants have endorsed the project and the land use is being negotiated for the WC SEZ development and conclude the land around the Mthatha will suitable for Phase 1 of the SEZ development;
- d) Bulk infrastructure is being planned and thus the WCSEZ's requirements for industrial (agri-processing) use can be incorporated;
- e) The land for Phase 1 is almost central point (distance) of the three District Municipalities; and
- f) The identified land is within the most populated local Municipality in the region compared to others.
- g) Mthatha Airport Phase 1 site almost in the centre of the three District Municipality; and
- h) Most of the population in the 3 districts is around KSDLM area.
- i) Development of a mixed –development precinct to de-densify Mthatha and to provide requisite social infrastructure (housing) to support development.

# 6.3 TYPE OF ACTIVITY

This report is intended to motivate for an environmental authorisation with regards to the clearance of natural vegetation on the proposed Phase 1 area as well as the construction of access roads, power lines, construction of potable water, sewer and storm water pipelines. It does not assess the potential impacts of each individual activity as this will be done when each activity is confirmed and the relevant designs and specifications in place to make an appropriate assessment. However, the proposed projects for development of the available land area include:

- Tunnel/hydroponic farming (peppers, tomatoes and others);
- 1 x Vegetable processing and packaging facility;
- 1 x Fresh water fish processing and packaging facility;
- 1 x Meat processing facility;
- Cold storage for meat, vegetables and fruit;
- 1 x Fruit processing and packaging facility;
- Essential oil processing facility;
- Logistics and distribution facility;
- Storage and silos;
- Maize milling facility;
- Dairy processing facility with warehousing;
- Wool scouring;
- Shared administration facilities; and
- Multi-user agro-processing incubator and innovation platform.

The impact assessments with regards to each activity listed above will be done when the relevant planning is complete and the investors pick a suitable development.

# 6.4 TECHNOLOGY

This was not assessed as this report focuses on the land clearance, construction of access roads, power lines, construction of potable water, sewer and storm water pipelines. The specific individual industrial and commercial activities or projects that will be on the SEZ will assess their specific technology alternatives during their individual environmental authorisation application processes.

# 7 DESCRIPTION OF THE BASELINE ENVIRONMENT

# 7.1 CLIMATE

# 7.1.1 REGIONAL OVERVIEW DESCRIPTION

The Mthatha climate is mild, and generally warm and temperate. Mthatha has a significant amount of rainfall during the year even in the driest month. The climate is classified as Cfb (also known as oceanic, marine or maritime climate) by the Köppen-Geiger system. This climate is characterised by cool summers (relative to the latitude) and cool winters. The annual temperature range is narrow with a few temperature extremes. Oceanic climates have a monthly mean temperature below 22°C in the warmest month and above 0°C in the coldest month. There is no clearly defined dry season as the rainfall is evenly distributed through the year. The average annual temperature in Mthatha is 17.5°C. In a year, the average rainfall is 693 mm with the lowest precipitation experienced in June, with an average of 16 mm. March has the most precipitation at an average of 99 mm. The Mthatha climograph is show in **Figure 7-1** below.



The difference in precipitation between the driest and wettest months is 83 mm. the average temperatures vary by 9.5°C over the course of a year as shown by the climate table in **Figure 7-2** below.

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	21.6	21.7	20.8	18.2	15.2	12.6	12.2	14	16	17.8	19.2	20.4
Min. Temperature (°C)	16	16.3	15.2	11.8	7.8	4.3	3.9	6	8.9	11.5	13.4	14.6
Max. Temperature (°C)	27.2	27.2	26.5	24.7	22.6	20.9	20.6	22	23.2	24.2	25	26.3
Avg. Temperature (°F)	70.9	71.1	69.4	64.8	59.4	54.7	54.0	57.2	60.8	64.0	66.6	68.7
Min. Temperature (°F)	60.8	61.3	59.4	53.2	46.0	39.7	39.0	42.8	48.0	52.7	56.1	58.3
Max. Temperature (°F)	81.0	81.0	79.7	76.5	72.7	69.6	69.1	71.6	73.8	75.6	77.0	79.3
Precipitation / Rainfall	92	91	99	47	29	16	18	24	44	67	83	83
(mm)												

Figure 7-2: Mthatha historical data / climate table (source: climate-data.org)

## 7.1.2 TEMPERATURE

The average temperatures of oceanic climates are cool temperatures with some minor extremes in temperature which are infrequent. As mentioned before, the annual temperature range is narrow with a few temperature extremes. The monthly mean temperature is below 22°C in the warmest month and above 0°C in the coldest month.

February is the hottest month of the year at an average temperature of 21.7°C while July is the coldest at an average temperature of 12.2°C. This is as shown in **Figure 7-3** below.



Figure 7-3: Mthatha temperature graph (source: climate-data.org)

## 7.1.3 RAINFALL

Oceanic climates are characterised by adequate and reliable rainfall over the course of a yet with extended months of rainy and cloudy conditions. As mentioned before, there is no clearly defined dry season as the rainfall is evenly distributed through the year. The average annual rainfall is 693 mm with the lowest precipitation experienced in June, with an average of 16 mm. March has the most precipitation at an average of 99 mm.

The KSD area receives a significant amount of rain in winter months for the coastal areas, however, the inland receives 80% or more of the rainfall in the 6 months from October to March (81% at Mthatha). The monthly precipitation trend in Mthatha over the last year is shown in **Figure 7-4** below.



# 7.1.4 LOCAL WIND FIELD

Based on the available meteorological data, winds originate predominantly from the South East (14.4% of the time) especially in the months of January to April and then August to December. Wind speeds are generally slow to moderate. Calm conditions, which are defined as wind speeds less than 1 m/s, occur infrequently. The chart in **Figure 7-5** below shows the days per month the wind reaches a certain speed around the Mthatha Airport.





Mthatha Airport wind speed chart



The wind rose in **Figure 7-6** below shows how many hours per year the wind blows from a particular direction around Mthatha Airport.

# 7.2 TOPOGRAPHY

## 7.2.1 SITE DESCRIPTION

The proposed project site is such that the wetlands and any storm water from the airport drains northwards towards the Mtata Dam as it is downslope of the proposed WCSEZ. The neighbouring communities to the East, South and West are generally at a higher topography from the proposed project site. This means that the locality of the project area has a general higher elevation from the south with the north being downslope. **Figure 7-7** below shows the elevation profile from the proposed project site to the north towards the Mthatha Dam where the drainage is directed to.





# 7.3 GEOLOGY

### 7.3.1 REGIONAL AND SITE SETTING

The study area is mainly underlain by sedimentary rocks (sandstones and shales), through which magmas have intruded to form dolerite dykes and sills. Kimberlites, diatremes and other centres of volcanic activity also occur at a number of localities within KSDLM.

The soils in the area are closely related to the underlying geology and geomorphology of the region. The soils are arable and most of the productive soils are cultivated. The area has no mineral resources of major economic scale, however, crush stone and building sand are found in the area.

# 7.4 SURFACE WATER

### 7.4.1 REGIONAL AND SITE SETTING

The study area is mainly within the T20B quaternary catchment and partially within the T20C quaternary catchment. Both quaternary catchments are drained by the Mthatha River which is part of the Mzimvubu to Keiskamma Water Management Area (WMA). The proposed WCSEZ area is upslope from the south west of the Mthatha Dam which is situated within a reach of the Mthatha River, whilst the eastern extent of the northern development is upslope of the Cicira River which terminates at the base of the Mthatha dam wall and into the Mthatha River. The Mthatha River eventually drains into the Mthatha River Estuary which is situated approximately 80 km south east of the planned development which then terminates at the South Indian Ocean, approximately 85 km south east of the study area as shown in **Figure 7-8** below.



Figure 7-8: Regional and local (site) drainage setting

# 7.4.2 WETLANDS

According to the desktop aquatic and terrestrial ecological scoping report by Eco-Pulse Environmental Consulting Services (Eco-Pluse, report number EP341-01), 4 individual wetland systems were identified within the DWS regulated area for water use licensing (i.e. within a 500 m buffer of the project development site). The location and extent of wetlands is indicated on the map in **Figure 7-9** below. An appreciable area of wetland habitat is shown to be located on the northern portion of the site, particularly within the north-western section and this is likely to pose a potentially significant constraint to development on this portion. Based on the desktop assessment, the southern portion does not appear to be associated with wetlands (apart from the wetland existing to the west of the site (W01), however it must be noted that this area was not surveyed during the 2012 investigation and will need to be assessed during detailed field surveys planned for the first quarter of 2018.



#### Figure 7-9: Wetland map

The wetlands are northward draining systems that drain towards Mthatha Dam and located within quaternary catchment T20B and characterised by moderate precipitation and high evapotranspiration rates. The wetlands are largely seasonal valley bottom wetlands and seepage wetlands fed primarily by a combination of surface/storm water runoff from existing airport infrastructure and sub-surface interflow following rainfall entering the ground surface. The wetlands fall on the boundary between the Sub-Escarpment Grassland Group 7 and Sub Escarpment Savanna vegetation groups. Both of these wetland types have seen considerable levels of transformation.

Based on the site assessment undertaken by Eco-Pulse in 2012 for the Mthatha Airport expansion, it appears that these wetlands were probably smaller unchannelled valley bottom wetlands and seeps historically (prior to human development and alteration), with subsurface water inputs probably being equal or greater than surface water inputs. With the alteration of the land surface and construction of hardened infrastructure in the catchment area associated with the airport, wetland hydrology has been largely altered, with increased water inputs as a result of enhanced surface water runoff from the airstrip and concentrated storm water flows through artificial drains that discharge into the wetlands.

As a result, the wetlands are likely to have increased in size with the increased level of wetness, with the dominant vegetation types changing from short rushes and hydric grass species (under the natural reference state) to denser sedges and bulrushes that now dominate these systems.

Based on the 2012 assessment, wetlands were found to be in a Moderately Modified to Largely Modified condition or Present Ecological State ('C' and 'D' PES), with the wetland providing a range of ecosystem goods and services, with the importance of these services generally regarded as being low-moderate. Wetland condition and functioning may have changed over the past 5 years and will therefore need to be confirmed/re-assessed during detailed field surveys planned for the first quarter of 2018.

#### AQUATIC CONSERVATION PRIORITIES HIGHLIGHTED IN THE ECBCP

According to the Eastern Cape Biodiversity Conservation Plan (ECBCP), aquatic conservation priorities highlighted for the project area and planned development site include the catchment draining north towards the Mthatha Dam (**Figure 7-10**) which has been identified as an aquatic critical biodiversity area (CBA) at level 1 (A1), which represents in this instance critically important river sub-catchments in a natural state that are considered critical for conserving biodiversity and maintaining ecosystem functioning (Hayes et al., 2007). Aquatic CBA 1 areas require high levels of protection and the recommended management objective for these areas should be to: "*Maintain biodiversity in as natural state as possible, Manage for no biodiversity loss*" (Hayes et al., 2007).



#### Figure 7-10: Aquatic CBA map

The catchment draining south has been identified as an aquatic CBA at level 2 (A2b, E3b), which are critically important river sub-catchments in a near-natural state that are considered important catchment management areas and zones for conserving biodiversity and maintaining ecosystem functioning in order to support important downstream rivers and estuaries.

Land-use planning needs to take into account the linkages between catchments, important rivers and sensitive estuaries, with a key focus around limiting transformation in CBA catchments. When landscapes are transformed beyond certain critical thresholds, ecological processes such as fire and the water cycle show dramatic changes, with transformation of catchments also generally resulting in loss in stream flow and a decline in water quality.

# 7.5 GROUND WATER

# 7.5.1 SITE DESCRIPTION

The Eco-Pulse report identified 4 wetland systems within the proposed project area. The wetlands are largely seasonal valley bottom wetlands and seepage wetlands fed primarily by a combination of surface/storm water runoff from existing airport infrastructure and sub-surface interflow following rainfall entering the ground surface. With the alteration of the land surface and construction of hardened infrastructure in the catchment area associated with the airport, wetland hydrology has been largely altered, with increased water inputs as a result of enhanced surface water runoff from the airstrip and concentrated storm water flows through artificial drains that discharge into the wetlands.

# 7.6 LAND USE AND CAPABILITY

The criteria used for selecting a suitable location for the WCSEZ are based on those characteristics required for the development of an industrial node; SEZ's are a type of sectoral node. The main characteristics required are as follows:

- a) Proximity to residential areas, being an industrial development node a radius of 5-10 km was used;
- b) Demographics should favour a skilled to semi-skilled and employable age population of between 18 and 55 years old;
- c) Potential socio-economic opportunities;
- d) Accessibility to various modes of transport, i.e. rail, sea port, airport and road for the transportation of raw materials (agricultural produce) and products to markets;
- e) Quality bulk infrastructure to support the identified economic cluster; quality in this context means fit-forpurpose and assessed on whole life with planned maintenance. Bulk infrastructure includes high voltage electricity, water, sewerage, roads and storm water management and ICT;
- f) Favourable environmental conditions, meaning not within designated biodiversity areas and acceptable air quality envelop;
- g) Relatively flat, with good drainage and geologically sound; and
- h) Physical land requirement of approximately 100-500 ha, preferably government owned and already zoned for industrial purposes.

Upon evaluating land around the 3 districts, it was from land around the Mthatha Airport, approximately 226 ha (gross) which is non-aviation land has been identified for Phase 1 of the WCSEZ.

The area is characterised by agricultural land with good potential as indicated in the feasibility study as well as the KSDLM Integrated Development Plan (IDP). The IDP also indicates that agriculture has the most number of cooperatives developed with the KSDLM's support in the area (49), however, due to the potential in the area, this can be increased and produce further jobs. The land cover pattern is largely determined by topographical and climatic factors that for agricultural activity.

The proposed development or land use zones are shown in Figure 7-11 below.



Figure 7-11: Agro-Processing hub development / land use zones

# 7.7 AIR QUALITY

## 7.7.1 REGIONAL DESCRIPTION

There was a recent major revision of air quality management in South Africa which saw a shift from source based air quality management approach under the Atmosphere Pollution Prevention Act (No. 45 of 1965) (APPA) to an ambient based approach under the National Environmental Management: Air Quality Act (No. 39 of 2004(AQA). This means that the responsibility for air quality management has been shifted to the local authority level (district and metropolitan municipalities) as part of their IDP.

The key causes of air quality issues are:

- Burning of tyres during winter season;
- The public transport sectors (taxis, trucking, buses) are responsible for emitting pullulates in the form of exhaust fumes;
- Uncontrolled, extensive and unnecessary burning grasslands;
- Lack of public awareness of air quality issues and legislated pollution prevention; and
- Lack of appropriately skilled monitoring and enforcement.

The ORTDM is in the process of developing its air quality management plan, however, based on the district's IDP, the air quality in the municipality is relatively good as there are no major industries. Although there are no pollution statistics for the KSDLM, the greenhouse emissions can be measured by estimating the CO<sub>2</sub> emissions from energy carriers like vehicles, paraffin, coal and firewood.

# 7.8 FLORA AND FAUNA

# 7.8.1 FLORA

The project area has a wide range of habitats which include upland and coastal grassland, Afromontane and coastal forest, valley thicket, thorny bushveld, coastal and marine habitats. According to the Threatened Ecosystem coverage for the country which was interrogated, the project area and planned development site is located within the Eastern Valley Bushveld (Least Threatened) and Mthatha Moist Grassland (Endangered). A desktop aquatic and terrestrial ecological scoping report by Eco-Pulse Environmental Consulting Services (Eco-Pluse, report number EP341-01) provided national, provincial and regional conservation planning information with an overview of the site as shown in **Figure 7-12** below.

NATIONAL LEVEL CONSERVATION PLANNING CONTEXT							
Conservation Planning Dataset	Relevant Conservation Feature	Location in Relation to Project Site	Conservation Planning Status				
National Vegetation Types (Mucina & Rutherford, 2006)	Eastern Valley Bushveld (SVs6)	Untransformed vegetation within the portion north of Umthatha Airport	Least threatened, Nominally protected				
Ecosystem Threat Status NBA 2011	Mthatha Moist Grassland (Gs 14)	Untransformed vegetation within the portion north and south of Umthatha Airport	Endangered				
	Mthatha River	North of the site	Non-FEPA River				
The National Freshwater	Wetlands	Within site boundary and to the north and east	Non-FEPA Wetlands				
Ecosystem Priority Area (NFEPA) Assessment (CSIR, 2011)	Wetland Vegetation: 1. Sub-Escarpment Savanna 2. Sub-Escarpment Grassland Group 7	Intact wetland areas	1. Endangered 2. Critically Endangered				
PROVINCIAL AND REGIONAL LEVEL CONSERVATION PLANNING CONTEXT							
Conservation Planning Dataset	Relevant Conservation Feature	e Location in Relation to Project Site	Conservation Planning Status				
EC Aquatic Conservation Plan (Berliner and Desmet, 2007)	Wetlands and catchment area	Entire site and catchment	Critical Biodiversity Area 1 (CBA 1) and CBA 2				
EC Terrestrial Conservation Plan (Berliner and Desmet, 2007)	Untransformed/Intact terrestrial grassland	Site and surrounds	Critical Biodiversity Area 1 (CBA 1) and CBA 2				

#### Figure 7-12: Key conservation context

According to the Eco-Pulse report, based on a desktop assessment of the type and condition of the vegetation using current and historical aerial photography, much of the vegetation within southern portion of the site (south of Mthatha Airport) appears to be degraded and secondary, subject to years of historic cultivation and with signs of active cultivation on portions of the site. Within this section of the project area, the vegetation is unlikely to resemble the natural reference vegetation type (Mthatha Moist Grassland, Endangered threat status). Within the northern section of the project area (i.e. north of the airfield/runway) however, the grassland areas appear to be more intact which was also confirmed during a site visit and walk-over conducted in 2012 by Eco-Pulse Consulting. Portions appear degraded but there are likely to still be significantly large areas of intact vegetation, however, the extent to which this resembles primary grassland and the natural reference vegetation type remains to be confirmed during the detailed EIA phase and vegetation field surveys still to be undertaken during the first quarter of 2018.

Therefore, at this stage it is not known for certain whether primary grassland/vegetation exists on the northern portion of the project site, but if there are areas of intact Mthatha Moist Grassland (Endangered threat status), the protection/conservation of (at least a portion) these areas may be necessary and the transformation of these areas due to the proposed development could warrant the need for biodiversity offsets to compensate for the loss of this type and the potential contribution towards not meeting conservation targets for this vegetation type (depending on the nature of transformation and the extent transformed). This will need to be confirmed during the detailed vegetation assessment and field surveys planned for the first quarter of 2018.

#### EASTERN CAPE BIODIVERSITY CONSERVATION PLAN

The ECBCP (Hayes et al., 2007; Berliner & Desmet, 2007) addresses the urgent need for integrative systematic conservation planning and capacity building for land-use decision making in the EC. The ECBCP is a systematic conservation plan that identifies and spatially maps Critical Biodiversity Areas (CBAs) required for biodiversity persistence and to inform protected area planning and rural land-use planning in the Province. For successful implementation of the ECBCP, the CBAs need to be incorporated at all levels of spatial development planning.

The ECBCP maps the site as a Terrestrial CBA level 1 2 (T2) (**Figure 7-13**), which captures sections of nearnatural landscape and the (potential) presence of representative 'Endangered' vegetation types (i.e. Mthatha Moist Grassland) identified through the systematic conservation assessment. The central portion of the northern project area has been mapped as a CBA at level 1 and has further been identified as a potentially important ecological corridor for the movement of biota.

Associated land-use guidelines for CBA areas are in the form of Biodiversity Land Management Classes (BLMCs) which set out the desired ecological state that an area should be kept in to ensure biodiversity persistence. For terrestrial CBA areas, the desired state should be to 'maintain biodiversity in near-natural state with minimal loss of ecosystem integrity and no transformation of natural habitat should be permitted'.



Figure 7-13: Terrestrial CBA map

The ECBCP also identifies the portion of land to the north of the project area (surrounding Umthatha Dam) as a Provincial Protected Area: Nduli Luchaba Nature Reserve (**Figure 7-14** below). This is an approximately 460 ha provincial nature reserve which hosts a variety of wildlife, with a series of wetlands and grasslands that support rare and threatened cycads and a wide selection of birds including the rare 'Stanley's Bustard' (Vulnerable threat status) and many wetland birds (online source: http://www.mthathadam.co.za). There are no planned expansion areas for national protected areas mapped in the area around Mthatha in terms of the latest National Protected Areas Expansion Strategy (NPAES) spatial coverage.



#### Figure 7-14: Extent of the Nduli Luchaba Nature Reserve

Interrogation of SANBI's online threatened species database for the quarter degree grid square 3128DA highlighted 4 species for consideration (refer to **Figure 7-15**, below). Of the 4 species highlighted, only 2 were identified as being 'possible' to potentially occur within remaining untransformed/intact grassland habitat in the project study area. The 2 plant species (*Brachystelma caffrum* and *Crinum macowanii*) will therefore be the focus during detailed vegetation surveys of the site to be undertaken.

Species Name	Threat Status	Description	Major Ecosyste m	Habitat Preferences	Potential Occurrence (POC)
Brachystelma caffrum <sup>1</sup>	VU	Perennial. Geophyte, succulent	Terrestrial	Moist grassland with a preference for dolerite outcrops. Altitudinal range: 300- 1600m.	Possible
Impatiens flanaganiae <sup>2</sup>	VU	Perennial. Herb	Terrestrial	Scarp forest near waterfalls and seepage areas. Altitudinal range: 10-150m.	Highly Unlikely
Dioscorea brownii³	EN	Perennial. Geophyte, herb, succulent	Terrestrial	Tall mistbelt and moist montane grassland, on high ground along forest margins, in rich, red, dolerite soils. Altitudinal range: 650-1450m.	Unlikely
Crinum macowanii₄	DECL	Perennial. Geophyte	Terrestrial	Mountain grassland and stony slopes in hard dry shale, gravely soil or sandy flats. Altitudinal range: 200-1650m.	Possible

Key to Species Threat Status: EN – Endangered VU – Vulnerable DECL - Declining

Figure 7-15: Flora of conservation significance

# 7.8.2 FAUNA

#### MAMMALS

The potential occurrence (POC) of mammal species of conservation significance (i.e. Red data/Endangered species) was assessed based on available distribution records and habitat requirements for these species, with the outputs of the desktop POC survey available as Table 7 in the Eco-Pulse report (**Appendix E-1**). The lack of species-specific habitat for most of the mammals listed in Table 7 of the Eco-Pulse report greatly reduces the likelihood of their occurrence at the site. The likelihood of occurrence of many of these species is further reduced by their proximity to human activities. Larger mammal species have either been eradicated or have moved away from the area due to high levels of human disturbance associated with human occupation in the area as well as development and cultivation pressures.

Small mammal species are also extremely vulnerable to human impacts, poaching as well as dogs and feral cats. It is therefore quite unlikely that the development site itself constitutes significant habitat for any species of threatened mammal species as well as for mammal species in general. The dominant small mammal species occurring within adjacent intact habitats are also likely to be limited to those with one or more of the following traits:

- Have generally small range requirements and broad habitat requirements;
- Tolerance for human disturbance;
- Characterised by high reproductive and survival rates; and
- The ability to move easily between remaining untransformed vegetation patches.

#### **AVIFAUNA (BIRDS)**

The South African Bird Atlas Project (SABAP) aims to map the distribution and relative abundance of birds in southern Africa and relies heavily on data uploaded by "citizen scientists". Birds of conservation concern were identified through use of the SABAP database (available online at http://sabap2.adu.org.za/). Information for the Quarter Degree Grid Square (QDGS) 3128DB was used.

Whilst the majority of species recorded by the SABAP are considered locally common birds, there are a number of bird species that are considered to be of conservation concern based on their conservation/threat status. The distributional ranges and habitat requirements/preferences for each bird species of conservation concern was reviewed (based on available literature) to estimate the likelihood of these species occurring within the study area. Based on their habitat preferences and distributional range, 5 birds of conservation concern could possibly

utilise the grassland and wetland habitat at the site and surrounds, including African marsh-harrier (*Circus ranivorus*), Black-winged Lapwing (*Vanellus melanopterus*), Lesser Kestrel (*Falco naumanni*), Grey Crowned Crane (*Balearica regulorum*) and Denham's (Stanley's) Bustard (Neotis denhami).

A pair of Grey-Crowned Crane (VU) was observed by the ecologists from Eco-Pulse in 2012 within the moist grassland adjacent to the wetlands on the site in the northern section of the project area and probably exploit the site as the area is fenced and less vulnerable to predators. Stanley's Bustard (VU) is also known to occur within the grasslands within the adjacent Luchaba Nature Reserve to the north. There is therefore a reasonably high probability that these birds may be present on the development site and a priority during detailed field surveys (scheduled for the first quarter of 2018) will need to be assessing habitat and possible occurrence of these species on the site or in adjacent areas. Further input from the Endangered Wildlife Trust - African Crane Conservation Programme is also recommended to discuss issues related to the management of this species.

Important Bird Areas (Cape Vulture Colonies) have been identified within 50 km of the project area and are unlikely to be of much significance to this project. Fauna of conservation significance for the study area were highlighted by investigating at a desktop level:

- i. Biodiversity features and known faunal species for the EC region highlighted in the EC Conservation Plan (Berliner & Desmet, 2007);
- ii. Species records found in the SABAP database for the Region;
- iii. Available species records (ADU, 2013); and
- iv. Professional experience regarding rare/threatened amphibian species, reptiles and small mammals and their habitat requirements in eastern South Africa (KZN and EC).

The summary POC for bird species is indicated in **Table 8** of the Eco-Pulse report.

#### REPTILES

A number of endemic and near-endemic reptile species, including lizards, snakes and skinks, modelled to occur in this region of the EC and could potentially reside in the more intact grassland and wetland/riverine habitats in the study area. No endangered species are likely to occur based on the data/literature consulted. All reptile species are sensitive to major habitat alteration and fragmentation. As a result of human presence in the area coupled with historic and still active agricultural disturbances, alterations to the original reptilian fauna are expected to have already occurred, with remaining areas where anthropogenic impacts are limited possibly hosting some of the species listed. A summary of the reptile species of conservation in the study area is shown in Table 9 of the Eco-Pulse report.

#### AMPHIBIANS

The study area has not been highlighted as a particularly important area for the conservation of amphibian species such as frogs, with few known endemic or threatened species highlighted for the project site. Amphibian species of conservation concern are unlikely to be present at the site or within the surrounding aquatic habitats due to the lack of suitable habitat provided for key species such as the Endangereed Kloof Frog (*Natalobatrachus bonebergi*). The summary of POC of amphibian species in the study area is shown in Table 10 of the Eco-Pulse report.

#### INVERTEBRATES

There is generally very little available long-term information on invertebrate species and populations for most of South Africa, with no known available information on invertebrates for the study area to enable the assessment of POC.

# 7.9 HERITAGE AND PALAEONTOLOGY

# 7.9.1 HERITAGE REGIONAL AND SITE DESCRIPTION

A desktop Heritage Impact Assessment conducted by Frans Prins of Active Heritage (**Appendix E-2**) using the archaeological databases housed in the KwaZulu-Natal Museum and the SAHRA inventory of heritage sites in the Eastern Cape Province. The SAHRIS website was also consulted in order to locate additional sites and to evaluate the results of previous surveys near the study area. In addition, the available archaeological and historical literature covering the Eastern Cape was also consulted. Aerial photographs covering the project area was scrutinised for potential Iron Age and Historical period structures.

According to the desktop report, the available databases and literature did not suggest that any heritage features or sites of the following categories occur on the project area with regards to:

- Archaeological Sites;
- Living Heritage Sites;
- Cultural Landscapes; and
- Sites or areas with oral traditions attached to it.

A couple of Cultural Resource Management Projects have been conducted in the area during the last 10 years. Perhaps the most relevant of these in terms of proximity to the project area are the studies by Anderson (2013), Prins (2014) and Van Ryneveld (2010). Anderson reported graves and the remains of old homesteads adjacent to the R61 (southern bank) approximately 200m from Plot 2. It is therefore highly probable that similar features could also occur on Plot 2. The analysis of aerial photographs did, in fact, identified similar features on Plot 2. Nineteen features that may be old and abandoned Thembu/Xhosa Homesteads (Umzi) occur on this proposed development plot (Fig 3). A ground survey will be required in order to obtain more contextual information about these abandoned homesteads but it is possible to give a broad historical description relating to the significance of these.

The Nelson Mandela Museum contributes to the heritage of the KSDLM, however it is not in close proximity of the proposed project area as it is located in the city. The proposed project site is located 13.5 km away from the Nelson Mandela Museum. Any significant heritage resources around the proposed project site will be evaluated when the palaeontological field survey is conducted.

# 7.10 PALAEONTOLOGY

The project area falls within a red zone as characterised by the SAHRIS Fossil Sensitivity Map. Accordingly, a field assessment, by a SAHRA accredited palaeontologist, and protocol for finds will be required before any development may take place.



Figure 7-16: Palaeontological sensitivity

# 7.11 TRAFFIC

The project site is adjacent to the Mthatha Airport, however, this airport only serves two flights per day on the Mthatha-Johannesburg route. As the route is not that busy, the traffic in the area is not expected to be dense with the R61 expected to be the main access road that leads to the project site as well as surrounding communities. The area is mainly rural and is not expected to have a large number of cars per capita. No formal traffic impact assessment (TIA) has been done or is required.

# 7.12 SOCIO ECONOMIC PROFILE

## 7.12.1 REGIONAL SETTING

Over 80% of the Wild Coast population live in rural area that comprises three District Municipalities, namely Alfred Nzo District Municipality ANDM, ORTDM and Amathole District Municipality (excluding Buffalo City Municipality) and is home to 3.1 million people. The Wild Coast Region covers approximately 26% (44 420 km<sup>2</sup>) of the EC's land area with an average population density of 77 people per square km. The region has underdeveloped infrastructure, suppressed industrial and agricultural development, high levels of poverty and elevated unemployment at 43.7%. However, the population in this region has grown at an annual average growth rate of 0.3% between 1995 and 2013, which is a lower rate compared to other EC regions and the country as a whole.

Despite clearly having a developmental potential and a reasonable economic growth figure, over the past ten (10) years the region has seen an unacceptably high average unemployment rate of 43.7%. The region is extremely poor. Almost two-thirds (61%) of people living in the EC are below the poverty line of R620 per person per month, most of which live in the Wild Coast region. For many, income poverty is compounded by lack of access to basic services, in particular water and sanitation. In the circumstances prevailing in the region, the reliance on the tertiary sector, attributed to mainly government services, would not have much impact in reducing the high unemployment rate, the weak industrialisation situation and the unfulfilled agricultural potential that is characterised by high levels of unskilled and semi-skilled labour.

### 7.12.2 LOCAL SETTING

According to the KSDLM IDP, agriculture currently contributes 1% to the economic base of the area, which shows that the land with good agricultural potential is underutilised. The key sectors identified for future development include agriculture, forestry, fishing, tourism, construction and property management. The IDP also indicates that 35% of people in the municipality rely on social grants, with 65% of that receiving the child support grant. The statistics also show that 35.5% of the people in the area have no schooling, 32.1% in primary, 29.5% in secondary and only 2.9% of the population with tertiary education. The poverty level in the area sits at 54.5% with the majority of the population (44.9%) earning between R1 001 to R3 500.

# 8 IDENTIFICATION OF POTENTIAL IMPACTS

The scoping phase of an S&EIR process is aimed to identify those potential impacts that are most likely to be significant and which need to be assessed as part of the S&EIR process. The determination of anticipated impacts associated with the proposed Project is a key component to the S&EIR process. This Chapter identifies the perceived environmental and social effects associated with the proposed Project. The assessment methodology indicated in **Section 3.3**.

The issues identified stem from those aspects presented in Chapter 7 of this document as well as project description provided. Each significant issue identified is to be investigated further during the S&EIR process. Non-significant issues will be scoped out of the study with reasonable consideration given within the Scoping Report.

# 8.1 CLIMATE

The potential impacts of the project in the area with regards to climate include:

## 8.1.1 CONSTRUCTION AND OPERATION IMPACTS

There will be limited expected changes to the climate due to the proposed project as influenced by carbon emissions from machines vehicles on the site during site clearance. The clearance of natural vegetation as well as wetland vegetation will impact the carbon storing potential of the area and hence influence climate change, however, to a small extent. This project focuses on clearance and establishing the SEZ, construction of access roads, power lines, construction of potable water, sewer and storm water pipelines but not the individual industrial or commercial activities that will occur on the SEZ.

### 8.1.2 PROPOSED FURTHER STUDIES WITHIN THE EIA

The proposed project will have a small and negative impact on the climate and will not require any further studies within the EIA. However, each individual industrial or commercial activity to be done on the SEZ should be evaluated before approval.

# 8.2 TOPOGRAPHY

As indicated previously, the proposed project site is such that the wetlands and any storm water from the airport drains northwards towards the Mthatha Dam as it is downslope of the proposed WCSEZ.

### 8.2.1 CONSTRUCTION IMPACTS

The potential impacts of clearing the site vegetation, construction of access roads, construction of powerlines, potable water, sewer and storm water pipelines to establish the SEZ will have little to no impact on the general topography of the site. No intrusive excavations will be conducted at this state. The potential impacts of the individual activities that will be established once the SEZ is established will need to be evaluated for their potential impacts, however, since they are unlikely to cause a radical shift in the topography of the site.

## 8.2.2 OPERATION IMPACTS

These impacts will be further evaluated when the individual activities are proposed on the WCSEZ.

# 8.2.3 PROPOSED FURTHER STUDIES WITHIN THE EIA

No further studies are required with regards to the topography of the area in this EIA.

# 8.3 GEOLOGY

The study area is mainly underlain by sedimentary rocks (sandstones and shales), through which magmas have intruded to form dolerite dykes and sills. The soils are arable and most of the productive soils are cultivated.

## 8.3.1 CONSTRUCTION IMPACTS

The clearance of the area, construction of access roads, power lines, construction of potable water, sewer and storm water pipelines will have little to no impact on the geology of the area, however, the individual activities to be carried out must be investigated.

### 8.3.2 OPERATION IMPACTS

These impacts will be further evaluated when the individual activities are proposed on the WCSEZ.

### 8.3.3 PROPOSED FURTHER STUDIES WITHIN THE EIA

No further studies are required with regards to the geology of the area in this EIA.

# 8.4 SURFACE WATER

As indicated before, the study area is mainly within the T20B quaternary catchment and partially within the T20C quaternary catchment. Both quaternary catchments are drained by the Mthatha River which is part of the Mzimvubu to Keiskamma Water Management Area (WMA). The proposed WCSEZ area is upslope from the south west of the Mthatha Dam which is situated within a reach of the Mthatha River, whilst the eastern extent of the northern development is upslope of the Cicira River which terminates at the base of the Mthatha dam wall and into the Mthatha River. There are 4 wetland systems within the project site as indicated in the Eco-Pulse report.

### 8.4.1 CONSTRUCTION IMPACTS

The vehicles and machines on the site use oil and fuel which has the potential to leak and be washed away into surface water sources. Washing of any vehicles on the site will impact surface water resources as contaminants are washed down to water resources. Furthermore, the clearance of the project site, construction of access roads, power lines, construction of potable water, sewer and storm water pipelines will leave loose soil, which can then be eroded to the Mthatha Dam which is downslope of the site to cause silting.

The biggest concern is that there are 4 wetland systems identified by the Eco-Pulse report which are within the project site which will be affected due to any physical activity on them.

### 8.4.2 OPERATION IMPACTS

These impacts will be further evaluated when the individual activities are proposed on the WCSEZ.

## 8.4.3 PROPOSED FURTHER STUDIES WITHIN THE EIA

A detailed wetland assessment will have to be conducted to confirm / ground-truth wetland boundaries, assess wetland condition, functioning and importance/sensitivity. The study should also focus on identification and assessment of the estimated significance of key ecological impacts to wetlands.

# 8.5 GROUND WATER

As indicated before, the Eco-Pulse report identified 4 wetland systems within the proposed project area. The wetlands are largely seasonal valley bottom wetlands and seepage wetlands fed primarily by a combination of surface/storm water runoff from existing airport infrastructure and sub-surface interflow following rainfall entering the ground surface.

## 8.5.1 CONSTRUCTION IMPACTS

There is a potential to contaminate groundwater resources through the infiltration of any fuels, oils or lubricants used by construction vehicles and machines. Washing of any vehicles on the site will impact the groundwater resources as well as any potential contaminants can seep into underground water sources.

## 8.5.2 OPERATION IMPACTS

These impacts will be further evaluated when the individual activities are proposed on the WCSEZ.

### 8.5.3 PROPOSED FURTHER STUDIES WITHIN THE EIA

The proposed detailed wetland assessment will be used to better inform the nature of potential impacts on the groundwater sources.

# 8.6 LAND USE AND CAPABILITY

The area is characterised by agricultural land with good potential as indicated in the feasibility study as well as the KSDLM IDP. The IDP also indicates that agriculture has the most number of cooperatives developed with the KSDLM's support in the area (49), however, due to the potential in the area, this can be increased and produce further jobs. The land cover pattern is largely determined by topographical and climatic factors that for agricultural activity.

The proposed project site is not utilised but is adjacent to the Mthatha Airport, the Hairfield residential community and some commercial spaces.

## 8.6.1 CONSTRUCTION IMPACTS

Phase 1 of the WCSEZ aims to promote agriculture and agri-processing. This is in a bid to take advantage of the agricultural potential of the land and utilise it productively as it is not under use. This project will see a positive impact on the land as it will be utilised to boost economic growth in the region.

### 8.6.2 PROPOSED FURTHER STUDIES WITHIN THE EIA

No further studies are required with regards to land use and capability.

# 8.7 AIR QUALITY

# 8.7.1 SENSITIVE RECEPTORS

Receptors are identified as areas that may be impacted negatively due to emissions from the proposed WCSEZ. Examples of receptors include, but are not limited to, schools, shopping centres, hospitals, office blocks and residential areas. The sensitive receptors identified in the areas surrounding the proposed WCSEZ are given in **Table 8-1**.

The proposed WCSEZ is located adjacent to the Mthatha airport and other smaller communities.

 Table 8-1:
 Location of sensitive receptors around the proposed WCSEZ

RECEPTOR	DISTANCE	DIRECTION
Mthatha Airport	0 km	Adjacent
Gxojana	~500 m	North
Mtata Dam	~1 km	North
Sheshegu	~500 m	North East
Nkanini	~2.5 km	North East
Ncise	~3 km	East
Efata	~3 km	South East
Hairfield	~1 km	South
Kaplan	~2.5 km	South
Kukani	~4.5 km	South West
Ntaka	~5 km	West
Kuthala	~4 km	West
Matshongwe	~3 km	North West

## 8.7.2 CONSTRUCTION PHASE IMPACTS

This scoping report looks at the impacts for the site clearance of the proposed WCSEZ, construction of access roads, power lines, construction of potable water, sewer and storm water pipelines. The site clearance as well as the excavation during construction of access roads, power lines and pipelines is a source of dust emissions that can have a substantial temporary impact on the local air quality situation. Emissions during construction are associated with land clearing, drilling and blasting, ground excavation and cut and fill operations. Dust emissions often vary substantially on a daily basis, depending on the level of activity, the specific operations

and the prevailing meteorological conditions. A large portion of the emissions results from equipment traffic over temporary roads at the construction site (USEPA, 1995).

Construction consists of a series of different operations, each with its own duration and potential for dust generation. Construction operations are of a temporary nature, with a definable beginning and end. Dust emissions vary substantially over different phases of the construction process (USEPA, 1995).

The quantity of dust emissions from construction operations is proportional to the area of land being worked and to the level of construction activity. Emissions from heavy construction are positively correlated with the silt content of the soil and the weight and speed of the average vehicle and negatively correlated with the soil moisture content (USEPA, 1995).

During the construction phase, it is expected that fugitive dust emissions will result from the construction of new infrastructure associated with the proposed project. Vehicle activities associated with the transport of equipment to and from the site, and on-site construction equipment traffic may also contribute to elevated fugitive dust levels. Sensitive receptors located in close proximity to the site will experience elevated dust levels during the construction phase although this is anticipated to be short-term and temporary in nature. With the implementation of appropriate mitigation measures such as wet suppression, dust emissions can be minimised and controlled.

### 8.7.3 OPERATION PHASE IMPACTS

These impacts will be further evaluated when the individual activities are proposed on the WCSEZ.

### 8.7.4 PROPOSED FURTHER STUDIES WITHIN THE EIA

No further studies are required for this EIA process. The individual activities will have their own impact assessments conducted.

# 8.8 FLORA AND FAUNA IMPACTS

### 8.8.1 CONSTRUCTION IMPACTS

Construction activities will have a variety of impacts on the fauna and flora of the site as well as on the surrounding area.

#### LOSS OF ENDANGERED SPECIES

The project will result in loss of endangered terrestrial vegetation and other species on the site.

#### DISTURBANCE OF SMALL MAMMALS, REPTILES AND BIRDS

Direct impacts include the removal of vegetation and the destruction of smaller animals unable to escape the construction area. In addition, faunal species making use of the site are likely to be disturbed by the increase of human activity associated with construction, and an increase in the generation of noise and dust could occur, which may displace faunal species.

#### SOIL EROSION DUE TO REMOVAL OF VEGETATION

Soil erosion due to the removal of vegetation may impact negatively on ecosystem function, thereby reducing the species richness.

Furthermore, the impacts of total development on habitat connectivity will be of local extent, permanent duration, high intensity and high probability. During the Construction phase, the significance is expected to be low without and none with mitigation.
#### LOSS OF HABITAT/ECOSYSTEMS

The project will result in loss of habitat/ecosystems on the site.

#### LOSS OF SENSITIVE SPECIES

The project will result in loss of sensitive species on the site. The terrestrial ecosystems (Mthatha Moist Grassland, Endangered status) appear to be largely confined to the northern sections of the project area and potentially occurring conservation important flora include *Brachystelma caffrum* and *Crinum macowanii*.

#### IMPACT ON HABITAT/RURAL CONNECTIVITY AND OPEN SPACE

The project will result in the loss of habitat / rural connectivity on the site as a result of the presence of an ecological corridor identified in the Eastern Cape Biodiversity Conservation Plan.

#### 8.8.2 OPERATIONAL IMPACTS

These impacts will be further evaluated when the individual activities are proposed on the WCSEZ.

#### 8.8.3 PROPOSED FURTHER STUDIES WITHIN THE EIA

A detailed baseline field survey will be required to assess the baseline terrestrial vegetation status, species composition, condition and importance, with a focus on mapping and assessing untransformed grassland vegetation and habitat. A key distinction will be made between primary and secondary vegetation communities, and the representatives of any remaining intact grassland vegetation communities by comparison with known reference state/composition.

The focus of faunal surveys should be on assessing habitat condition and requirements for key bird species (i.e. Grey Crowned Crane and Stanley's Bustard) and documenting the presence and location of any feeding, breeding, nesting/roosting sites in the field.

#### 8.9 HERITAGE

#### 8.9.1 CONSTRUCTION IMPACTS

The land clearance will be non-intrusive, however, the construction of roads, power lines and pipelines will be intrusive. The desktop HIA identified abandoned Xhosa/Thembu homesteads on the 65 ha portion to the south of the Mthatha Airport. The site is also suspected to harbour graves. The construction activities will see the demolition of the suspected homesteads and graves that are important to the local population. It should be pointed out that the South African Heritage Act requires that all activities should cease immediately should the developers unearth any additional heritage sites or artefacts pending an evaluation by the heritage authorities.

#### 8.9.2 OPERATION AND DECOMMISSIONING IMPACTS

There will be little to no impacts with regards to heritage resources during operation and decommissioning. This is because all the heritage impacts are expected to be realised during the construction phase where there will be intrusive activities.

#### 8.9.3 PROPOSED FURTHER STUDIES WITHIN THE EIA

The desktop HIA conducted used databases as well as satellite imagery to provide an opinion and recommend the way forward. The final recommendation of the HIA was that a Phase Two Heritage Impact Assessment based on a systematic ground survey will be required on Plot 2 before development may proceed. If any graves are identified then a Phase Three HIA will also be necessitated in order to initiate a grave exhumation and translocation process.

#### 8.10 PALAEONTOLOGY

#### 8.10.1 CONSTRUCTION IMPACTS

As with heritage, the land clearance will be non-intrusive, however, the construction of roads, power lines and pipelines will be intrusive. Based on the SAHRIS tool, the area is in a red zone for palaeontology, which is very high risk for presence of palaeontological resources. The intrusive construction activities can lead to discovery and damage to palaeontological resources.

#### 8.10.2 OPERATION AND DECOMMISSIONING IMPACTS

There will be little to no impacts with regards to palaeontological resources during operation and decommissioning. This is because all the palaeontological impacts are expected to be realised during the construction phase where there will be intrusive activities.

#### 8.10.3 PROPOSED FURTHER STUDIES WITHIN THE EIA

Since the project area lies in the red zone according to the SAHRIS tool, a Phase One Paleontological Impact Assessment (PIA) will need to be conducted on the project area before any development may proceed.

#### 8.11 TRAFFIC

As mentioned before, the project site is adjacent to the Mthatha Airport, which only serves two flights per day on the Mthatha-Johannesburg route. The surrounding communities are mainly regarded as rural with less cars expected per capita.

#### 8.11.1 CONSTRUCTION AND OPERATION IMPACTS

There will be insignificant impact on traffic during the clearance of the proposed project site since only land clearing and road construction equipment, and machines will be brought in and kept on the site until the site is set up. The operational impacts will be further evaluated when the individual activities are proposed on the WCSEZ, especially the cumulative impacts as more industrial, agricultural and commercial activities grow in the SEZ.

#### 8.11.2 PROPOSED FURTHER STUDIES WITHIN THE EIA

No further studies are required for this EIA.

#### 8.12 SOCIO ECONOMIC PROFILE

As indicated before, the region has underdeveloped infrastructure, suppressed industrial and agricultural development, high levels of poverty and elevated unemployment at 43.7%. Furthermore, the area has high population living under the poverty line.

#### 8.12.1 CONSTRUCTION IMPACTS

There will be little positive impacts during the clearance, construction of access roads, power lines, and construction of potable water, sewer and storm water pipelines on the site. The majority of jobs will be created during the construction and operation of the individual projects that will result after the SEZ is established. This is when a high impact will be felt as well as through the economic spin-offs that come from the various industrial, agricultural and commercial activities that result.

#### 8.12.2 OPERATION IMPACTS

These impacts will be further evaluated when the individual activities are proposed on the WCSEZ as they will detail the capital input into the region.

#### 8.12.3 PROPOSED FURTHER STUDIES WITHIN THE EIA

No further studies are required for this EIA.

#### 8.13 SUMMARY OF POTENTIAL IMPACTS

The potential environmental and social impacts are described in Table 8-2.

 Table 8-2:
 Summary Table of Potential Environmental and Social Impacts

ENVIRONMENT	IMPACT DESCRIPTOR/DISCUSSION	Potential Impact	Character	Probability	Consequence	SIGNIFICANCE (BEFORE MITIGATION)	Further study required
Climate	Climate change due to emissions from vehicles and machines clearing the site as well as through vegetation removal.	Climate change	Negative	1	1	Very Low	Νο
Topography	The clearance of land using machinery will be non-intrusive. Intrusive operations will occur when individual activities occur, however, these are expected to be minimal. The construction of access roads, power lines, construction of potable water, sewer and storm water pipelines will be intrusive, however, the area will be filled in and levelled soon after establishment.	Change in topography / slope	Negative	1	1	Very Low	Νο

ENVIRONMENT	IMPACT DESCRIPTOR/DISCUSSION	Potential Impact	Character	Probability	Consequence	SIGNIFICANCE (BEFORE MITIGATION)	Further study required
Geology	The clearance of land using machinery will be non-intrusive and will not affect the geology of the site. The individual activities will have to be evaluated when proposed.	Stability of the area	Negative	1	1	Very Low	No
	The construction of access roads, power lines, construction of potable water, sewer and storm water pipelines will be intrusive but to a very low extent to affect.						
Ecology	<b>Ecology</b> The site is located in terrestrial and aquatic CBA areas which will be cleared for individual activity use. Endangered and Critically	Loss of habitat / ecosystems	Negative	3	3	Medium	Yes
Endangered vegetation including the Mthatha Moist Grassland and wetland vegetation will be lost. The clearing of vegetation will also lead to loss of habitat and ecosystems.	Loss of sensitive plant species	Negative	4	4	High		
	Impact on habitat / rural connectivity and open space	Negative	3	3	Medium		
	Removal of vegetation	Negative	4	2	Medium		
		Destruction of smaller animals	Negative	3	3	Medium	

ENVIRONMENT	IMPACT DESCRIPTOR/DISCUSSION	Potential Impact	Character	Probability	Consequence	SIGNIFICANCE (BEFORE MITIGATION)	Further study required
Air Quality	The clearance, road, power lines and pipelines construction will pose some low risk with regards to carbon and dust emissions. These will be magnified when the individual activities are proposed.	Dust and exhaust emissions during clearance	Negative	2	2	Low	Νο
Noise Emissions	The presence of vehicles and machinery of the site which will cause noise to the receiving environment. This will be amplified as the individual activities are considered.	Noise from vehicles, machines and clearance activities	Negative	2	2	Low	No
Traffic The proj	The movement of vehicles to the proposed project site, however, this will be minimal during the clearance to establish SEZ as not many	Congestion on the roads	Negative	1	1	Very Low	No
	machines or vehicles will be on the site. The machinery will be kept on the site and will only	Noise	Negative	1	1	Very Low	
need to be brought in once and re the establishment is complete.	need to be brought in once and removed once the establishment is complete.	Exhaust pollution	Negative	1	1	Very Low	
Land Capability	There is a boost on the land capability is it will be utilised to maximise its potential.	Impact on land capability	Positive	2	2	Low	Νο
	There is potential of soil contamination by oils or fuel from the machines and vehicles.	Soil contamination	Negative	2	2	Low	No

ENVIRONMENT	IMPACT DESCRIPTOR/DISCUSSION	Potential Impact	Character	Probability	Consequence	SIGNIFICANCE (BEFORE MITIGATION)	Further study required
Soil, Hydrology and geohydrology	There is potential for soil erosion to occur when vegetation is removed and since the site is at an elevated topography compared to the north.	Soil erosion	Negative	3	3	Medium	Νο
	Loss of wetlands due to site clearance as well as the construction of roads, power lines, pipelines and future activities.	Loss of wetland systems	Negative	4	4	High	Yes
	Washing away of oils/fuels from vehicles, machines as well as effluents into surface water resources.	Contamination of surface water resources	Negative	2	2	Low	Νο
	Infiltration of leaked oils/fuels from vehicles, machines as well as effluents to groundwater resources.	Contamination of groundwater resources	Negative	1	2	Very Low	Νο
Heritage	Damage and demolition of heritage resources in the form of homesteads and potentially harboured graves.	Damage to abandoned homesteads and harboured graves.	Negative	4	3	High	Yes
Palaeontology	Damage and demolition of palaeontological resources.	Damage of palaeontological resources	Negative	4	3	High	Yes

ENVIRONMENT	IMPACT DESCRIPTOR/DISCUSSION	Potential Impact	Character	Probability	Consequence	SIGNIFICANCE (BEFORE MITIGATION)	Further study required
Visual	The visual impacts will be negligible during site clearance to establish the SEZ, however, they will be amplified and will carry higher significance when individual activities are proposed.	Visual impact on adjacent land users	Negative	1	1	Very Low	Νο
Socio-economic	The project will not provide many jobs during the site clearance phase, and construction of roads, power lines and pipelines however, the impact will be magnified when the individual	Provision of employment and skills development	Positive	1	1	Very Low	Νο
	activities are proposed. Furthermore, the local economy will be boosted due to the injection of investments which will cause a spin off in other sectors.	Boost in local economy	Positive	1	1	Very Low	No

The possible mitigation measures that could be applied to the potential impacts identified in **Table 8-2** are shown in **Table 8-3**.

#### Table 8-3: Mitigation Measures

ENVIRONMENT	MITIGATION MEASURES
Climate	<ul> <li>Ensure that all vehicles and machines are adequately maintained to minimise any potential emissions that can be harmful to the environment.</li> </ul>
Topography	<ul> <li>Ensure that appropriate rehabilitation is done after construction to ensure that there is little to no change in the topography of the site.</li> <li>All infrastructure will be designed with closure in mind.</li> <li>Where erosion channels form, they must be re-profiled and top-soiled. The cause of erosion must be investigated and addressed.</li> </ul>
Geology	<ul> <li>Follow the approved procedures during site clearance, construction of roads, power lines pipelines and avoid heavily intrusive operations.</li> <li>Follow the approved engineering designs when conducting individual activities.</li> </ul>
Ecology	<ul> <li>Ensure that contractors and staff are well managed and adhere to the mitigation and management measures stipulated in this report.</li> <li>Clear the approved areas on the site in accordance to the authorisation that is granted.</li> <li>Collect any snakes or animals that are discovered during construction and investigate where to move them.</li> <li>All hazardous substances must be stored on an impervious surface in a designated bunded area, able to contain 110% of the total volume of materials stored at any given time. Storage areas will be well marked with appropriate signage.</li> <li>In the event of an incident the Emergency Preparedness and Response Plan is to be followed.</li> </ul>
Air Quality	<ul> <li>Conduct dust suppression during construction to minimise dust emissions from the site activities.</li> <li>All stockpiles must be restricted to designated areas and may not exceed a height of two (2) metres.</li> <li>Ensure that all vehicles and machines are adequately maintained to minimise emissions.</li> <li>All issues/complaints must be recorded in the complaints register.</li> </ul>
Noise Emissions	<ul> <li>Ensure that all vehicles and machines are adequately maintained to minimise any potential noise emissions.</li> <li>Retrofit silencers to any machinery that has the potential to emit noise at levels higher than the acceptable emissions limits.</li> <li>Conduct occupational health surveys to ensure that the noise emissions do not exceed the acceptable occupational limits (85 dBA).</li> <li>All issues/complaints must be recorded in the complaints register.</li> </ul>
Traffic	<ul> <li>Ensure that all vehicles are adequately maintained to reduce noise and exhaust emissions.</li> </ul>
Land Capability	— N/A

ENVIRONMENT	MITIGATION MEASURES
Soil, Hydrology an Geohydrology	Draw up a stormwater management plan to control the flow of stormwater and limit the potential of dirty water from mixing with clean water sources.
	<ul> <li>Acquire spill kits to clean up any hydrocarbon or chemical spills during construction and operation.</li> </ul>
	<ul> <li>Ensure that the site is paved or has impermeable surface to limit the infiltration of contaminants if the individual activity allows it.</li> </ul>
	<ul> <li>All incidents must be reported to the responsible site officer as soon as they occur.</li> </ul>
	<ul> <li>Material Safety Data Sheets will be updated regularly and be available on site.</li> </ul>
	<ul> <li>Employees must be issued with appropriate PPE.</li> </ul>
	<ul> <li>Waste may be temporarily stored on site (less than 90 days) before being disposed of appropriately at a registered hazardous waste disposal facility.</li> </ul>
	<ul> <li>Oils, greases, diesel and other chemicals will be stored in the prescribed manner and within bunded areas to prevent soil contamination.</li> </ul>
	<ul> <li>Mitigate against soil erosion, storm water run-off control.</li> </ul>
	<ul> <li>Sustainable erosion control measures (for wind and water erosion) will be implemented and maintained where necessary in areas disturbed by the construction operations or the existing erosion control measures will be maintained.</li> </ul>
	<ul> <li>Dirty and clean water will be separated by implementing clean and dirty water systems/structures prior to construction to prevent pollution of clean water runoff. The clean and dirty water systems and structures will be properly designed (according to Regulation 704 of the National Water Act).</li> </ul>
Heritage	<ul> <li>Construction activities should be conducted carefully and all activities ceased if any archaeological, cultural and heritage resources are discovered. The South African Heritage Resource Agency (SAHRA) should be notified and investigation conducted before any activities can commence.</li> </ul>
Visual	<ul> <li>Ensure that all site disturbances are limited to areas where structures will be constructed.</li> <li>Ensure that contractors and staff are well managed and adhere to the mitigation and management measures stipulated in this report.</li> </ul>
	<ul> <li>Paint structures to blend with colours of the surrounding environment.</li> </ul>
	<ul> <li>All infrastructure will be planned and implemented to such an extent to ensure that all blend into the surrounding topography as far as feasible (from a visual perspective new infrastructure will be the same as existing infrastructure).</li> </ul>
Socio-Economic	<ul> <li>Consider the use of local labour for the project in order to benefit the local community.</li> <li>Where possible, use local suppliers for all required machinery or material.</li> </ul>

### 9 PLAN OF STUDY FOR THE ENVIRONMENTAL IMPACT ASSESSMENT REPORTING PHASE

#### 9.1 TERMS OF REFERENCE

Table 9-1 outlines the structure of the plan of study as required in terms of Annexure 2 of GNR 326.

 Table 9-1:
 Plan of Study Structure

PLAN OF STUDY CHAPTER	INFORMATION REQUIREMENT AS PER GNR 326
Description of EIA Tasks	A description of the tasks that will be undertaken as part of the environmental impact assessment process.
Description of Alternatives	A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity.
Aspects to be Assessed in the EIA Process	A description of the aspects to be assessed as part of the environmental impact assessment report process.
Specialist Studies	Aspects to be assessed by specialists.
Impact Assessment Methodology	<ul> <li>A description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists.</li> </ul>
	<ul> <li>A description of the proposed method of assessing duration and significance.</li> </ul>
Environmental Impact Report	Contents of EIAR as specified in GNR 326 Annexure 2
Stakeholder and Authority Engagement	<ul> <li>An indication of the stages at which the competent authority will be consulted.</li> </ul>
	<ul> <li>Particulars of the public participation process that will be conducted during the environmental impact assessment process.</li> </ul>

The following information required in terms of Annexure 2 of GNR 326 is not provided in this Plan of Study. Reference should be made to the relevant Section within the Scoping Report:

Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the
extent of the residual risks that need to be managed and monitored, including the option of not proceeding
with the activity.

#### 9.2 OVERVIEW OF THE EIAR TASKS

The EIA phase will consist of the following tasks; each of these tasks is detailed separately in the following subsections:

- Specialist studies;
- Continuation of Authority and stakeholder engagement;

- Assessment of the significance of potential impacts; and
- Preparation of the EIAR.

#### 9.3 **DESCRIPTION OF ALTERNATIVES**

The EIA process identifies two types of project alternatives:

- Concept Level Alternatives which relates to the site, technology and process alternatives; and
- Detailed Level Alternatives which relates to working methods and mitigation measures,

The feasibility of the higher level concept alternatives have been considered and assessed within Section 6 of the FSR. The Detailed Level Alternatives will be addressed within the EIAR.

### 9.4 ASPECTS TO BE ASSESSMENT WITHIN THE EIA PROCESS

IMDACT

**Table 9-2** below outlines the key aspects that were identified in the Scoping Phase; these will be the subject of further assessment in the EIAR Phase,

 Table 9-2:
 Further assessments required

ENVIDONMENTAL DECEDTOR

ENVIRONMENTAL RECEPTOR		TO BE ASSESSED BT
Ecology	Loss of endangered and critically endangered vegetation in a CBA area	Specialist – Terrestrial Ecological Assessment
Wetland	Loss of wetlands and wetland vegetation which will affect the ecosystem	Specialist – Wetland Impact Assessment
Heritage	Potential loss or destruction of heritage resources	Specialist – Heritage Impact Assessment
Palaeontology	Potential loss or destruction of palaeontological resources	Specialist – Palaeontology Impact Assessment

This section looks at the specialist studies to be done during the EIA period. All specialist studies to be undertaken have been incorporated in the baseline environment section.

#### 9.4.1 TERRRESTRIAL ECOLOGICAL ASSESSMENT

The terms of reference for the Terrestrial Ecological Assessment is as follows:

- Detailed baseline field survey to assess baseline terrestrial vegetation status, species composition, condition and importance, with a focus on mapping and assessing untransformed grassland vegetation and habitat. A key distinction will be made between primary and secondary vegetation communities, and the representatives of any remaining intact grassland vegetation communities by comparison with known reference state/composition.
- Baseline vegetation surveys to include an assessment of protected / conservation important plant species which will need to be documented and GPS coordinates taken for species encountered in the field.
- The focus of faunal surveys should be on assessing habitat condition and requirements for key bird species (i.e. Grey Crowned Crane and Stanley's Bustard) and documenting the presence and location of any feeding, breeding, nesting/roosting sites in the field.

TO BE ASSESSED BY

- Identification and assessment of the estimated significance of key ecological impacts to vegetation, plant species and fauna.
- Confirm any fatal flaws from a terrestrial ecological perspective to inform planning and layout of development proposed.
- Assess the need and desirability for terrestrial biodiversity offsets (where necessary) and provide preliminary recommendations.
- Recommendations in terms of impact mitigation and management aimed at reducing impacts significant in line with the principles of the 'mitigation hierarchy', including possible biodiversity buffer zones, development realignments, onsite controls (Best Management Practices: BMPs) and initial post-development rehabilitation requirements (i.e. conceptual terrestrial habitat rehabilitation strategy).

#### 9.4.2 WETLAND IMPACT ASSESSMENT

The terms of reference for the Wetland Impact Assessment is as follows:

- Detailed baseline field survey to confirm / ground-truth wetland boundaries, assess wetland condition, functioning and importance/sensitivity.
- Identification and assessment of the estimated significance of key ecological impacts to wetlands.
- Confirm any fatal flaws from an aquatic ecological perspective to inform planning and layout of development proposed.
- Assess the need and desirability for wetland offsets (where necessary) and provide preliminary recommendations.
- Recommendations in terms of impact mitigation and management aimed at reducing impacts significant in line with the principles of the 'mitigation hierarchy', including relevant wetland buffer zones, development realignments, onsite controls (Best Management Practices: BMPs) and initial post-development rehabilitation requirements (i.e. conceptual wetland rehabilitation strategy).

#### 9.4.3 HERITAGE IMPACT ASSESSMENT (HIA)

The terms of reference for the Heritage Impact Assessment is as follows:

- Detailed field survey to confirm the presence of abandoned homesteads and potentially harboured graves, assess their condition as well as importance/sensitivity.
- Assess the need for grave relocation, in the event that they are found.
- Recommendations in terms of impact mitigation and management measures to reduce impacts.

#### 9.4.4 PALAEONTOLGY IMPACT ASSESSMENT (PIA)

The terms of reference for the Heritage Impact Assessment is as follows:

- Detailed field survey to confirm the presence of potentially harboured palaeontological resources, assess their condition as well as importance/sensitivity.
- Assess the need for palaeontological resource relocation, in the event that they are found.
- Recommendations in terms of impact mitigation and management measures to reduce impacts.

#### 9.5 IMPACT ASSESSMENT METHODOLOGY

The EIAR uses a methodological framework developed by WSP to meet the combined requirements of international best practice and NEMA, Environmental Impact Assessment Regulations, 2014, as amended (GN No. 326) (the "EIA Regulations").

As required by the EIA Regulations (2014) as amended, the determination and assessment of impacts will be based on the following criteria:

Nature of the Impact;

- Significance of the Impact;
- Consequence of the Impact;
- Extent of the impact;
- Duration of the Impact;
- Probability if the impact;
- Degree to which the impact:
  - can be reversed;
  - may cause irreplaceable loss of resources; and
  - can be avoided, managed or mitigated.

Following international best practice, additional criteria have been included to determine the significant effects. These include the consideration of the following:

- Magnitude: to what extent environmental resources are going to be affected;
- Sensitivity of the resource or receptor (rated as high, medium and low) by considering the importance of the receiving environment (international, national, regional, district and local), rarity of the receiving environment, benefits or services provided by the environmental resources and perception of the resource or receptor); and
- Severity of the impact, measured by the importance of the consequences of change (high, medium, low, negligible) by considering inter alia magnitude, duration, intensity, likelihood, frequency and reversibility of the change.

It should be noted that the definitions given are for guidance only, and not all the definitions will apply to all of the environmental receptors and resources being assessed. Impact significance was assessed with and without mitigation measures in place.

#### 9.5.1 METHODOLOGY

Impacts are assessed in terms of the following criteria:

a) The nature; a description of what causes the effect, what will be affected and how it will be affected.

 Table 9-3:
 Nature or Type of Impact

NATURE OR TYPE	
OF IMPACT	DEFINITION

Beneficial / Positive	An impact that is considered to represent an improvement on the baseline or introduces a positive change.
Adverse / Negative	An impact that is considered to represent an adverse change from the baseline, or introduces a new undesirable factor.
Direct	Impacts that arise directly from activities that form an integral part of the Project (e.g. new infrastructure).
Indirect	Impacts that arise indirectly from activities not explicitly forming part of the Project (e.g. noise changes due to changes in road or rail traffic resulting from the operation of Project).
Secondary	Secondary or induced impacts caused by a change in the Project environment (e.g. employment opportunities created by the supply chain requirements).
Cumulative	Impacts are those impacts arising from the combination of multiple impacts from existing projects, the Project and/or future projects.

#### b) The physical extent.

#### Table 9-4: Physical Extent Rating of Impact

SCORE	DESCRIPTION
1	the impact will be limited to the site;
2	the impact will be limited to the local area;
3	the impact will be limited to the region;
4	the impact will be national; or
5	the impact will be international;

c) The duration, wherein it is indicated whether the lifetime of the impact will be:

#### Table 9-5: Duration Rating of Impact

SCORE	DESCRIPTION	
1	of a very short duration (0 to 1 years)	
2	of a short duration (2 to 5 years)	
3	medium term (5–15 years)	
4	long term (> 15 years)	
5	permanent	

d) **Reversibility:** An impact is either reversible or irreversible. A scale of the level of reversibility if an impact is How long before impacts on receptors cease to be evident.

SCORE	DESCRIPTION
1	The impact is immediately reversible.
3	The impact is reversible within 2 years after the cause or stress is removed; or
5	The activity will lead to an impact that is in all practical terms permanent.

e) The **magnitude** of impact on ecological processes, quantified on a scale from 0-10, where a score is assigned.

#### Table 9-6: Magnitude Rating of Impact

SCORE	DESCRIPTION
0	small and will have no effect on the environment.
1	minor and will not result in an impact on processes.
2	low and will cause a slight impact on processes.
3	moderate and will result in processes continuing but in a modified way.
4	high (processes are altered to the extent that they temporarily cease).
5	very high and results in complete destruction of patterns and permanent cessation of processes.

f) The **probability** of occurrence, which describes the likelihood of the impact actually occurring. Probability is estimated on a scale where:

#### Table 9-7: Probability Rating of Impact

SCORE	DESCRIPTION	
1	very improbable (probably will not happen.	
2	improbable (some possibility, but low likelihood).	
3	probable (distinct possibility).	
4	highly probable (most likely).	
5	definite (impact will occur regardless of any prevention measures).	

- g) The **significance**, which is determined through a synthesis of the characteristics described above (refer formula below) and can be assessed as low, medium or high;
- h) The status, which is described as either positive, negative or neutral;
- i) The degree to which the impact can be reversed;
- j) The degree to which the impact may cause irreplaceable loss of resources; and
- k) The degree to which the impact can be mitigated.

The significance is determined by combining the above criteria in the following formula:

#### Significance = (Extent + Duration + Reversibility + Magnitude) x Probability

 $[S = (E + D + R + M) \times P]$ 

Where the symbols are as follows:

SYMBOL	CRITERIA	DESCRIPTION
S	Significance Weighting	
E	Extent	Refer to Table 9-4
D	Duration	Refer to <b>Table 9-5</b>
М	Magnitude	Refer to Table 9-6
Р	Probability	Refer to <b>Table 9-7</b>

The significance weightings for each potential impact are as follows:

OVERALL SCORE	SIGNIFICANCE RATING (NEGATIVE)	SIGNIFICANCE RATING (POSITIVE)	DESCRIPTION
< 30 points	Low	Low	where this impact would not have a direct influence on the decision to develop in the area
31 - 60 points	Medium	Medium	where the impact could influence the decision to develop in the area unless it is effectively mitigated
> 60 points	High	High	where the impact must have an influence on the decision process to develop in the area

The impact significance without mitigation measures will be assessed with the design controls in place. Impacts without mitigation measures in place are not representative of the proposed development's actual extent of

impact, and are included to facilitate understanding of how and why mitigation measures were identified. The residual impact is what remains following the application of mitigation and management measures, and is thus the final level of impact associated with the development. Residual impacts also serve as the focus of management and monitoring activities during Project implementation to verify that actual impacts are the same as those predicted in this EIR.

#### 9.6 ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Once the FSR has been submitted to DEA the proposed project will proceed into detailed EIA phase, which involves the detailed specialist investigations. WSP will produce a Draft EIAR after the completion of the required specialist studies. The Draft EIAR will provide an assessment of all the identified key issues and associated impacts from the Scoping phase. All requirements as contemplated in the GNR 326 EIA Regulations will be included in the Draft EIAR. The Draft EIAR will contain, inter alia, the following:

- Details of the EAP who prepared the report and the expertise of the EAP to carry out the S&EIR process, including a curriculum vitae;
- The location of the activity, including the 21 digit Surveyor General code of each cadastral land parcel, where available, the physical address and farm name; and the coordinates of the boundary of the property or properties;
- A plan which locates the proposed activity or activities applied for as well as the associated structures and infrastructure at an appropriate scale;
- A description of the scope of the proposed activity, including all listed and specified activities triggered and being applied for; and a description of the associated structures and infrastructure related to the proposed project;
- A description of the policy and legislative context within which the development is located and an explanation of how the proposed development complies with and responds to the legislation and policy context;
- A motivation for the need and desirability for the proposed development, including the need and desirability
  of the activity in the context of the preferred location;
- A motivation for the preferred development footprint within the approved site;
- A full description of the process followed to reach the proposed development footprint within the approved site;
- Details of the public participation process undertaken;
- A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;
- The environmental attributes associated with the development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;
- The impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts;
- The methodology used in determining and ranking of potential environmental impacts and risks;
- Positive and negative impacts;
- An assessment of each identified potentially significant impact and risk;
- The possible mitigation measures that could be applied;
- An environmental impact statement;
- A description of any assumptions, uncertainties and gaps in knowledge;
- A reasoned opinion as to whether the proposed activity should or should not be authorised;
- An undertaking under oath or affirmation by the EAP; and

#### 9.7 STAKEHOLDER AND AUTHORITY ENGAGEMENT

#### 9.7.1 PUBLIC PARTICIPATION PROCESS

Public participation during the EIA phase revolves around the review and findings of the environmental impact assessment, which will be presented in the Draft EIAR. All stakeholders will be notified of the progress to date and availability of the Draft EIAR, via mail, email and/or SMS. A legislated period of 30 consecutive days will be allowed for public comment. Reports will be made available in the following way:

- Distribution for comment at central public places, which were used during the Scoping phase;
- The document will be made available to download from the WSP website; and
- Copies of CDs will be made available on request.

A public meeting required in order to reach the majority of the stakeholders especially the landowners as the land is communally owned. The meeting will be facilitated by key members of the project team. The public meeting would be to present the findings of the impact assessment and address issues of concern raised during the Scoping phase.

The EIA phase will provide the following information to I&APs:

- Initial Site Plan;
- Alternatives;
- A description of activities and operations to be undertaken;
- Baseline information;
- Specialist studies;
- Impact assessment;
- Management measures;
- Monitoring and measuring plan; and
- Closure details.

The information outlined above will be presented in one or more of the following:

- Notifications;
- Scoping Report;
- EIAR; and
- EMPr.

All comments received during the EIA phase will be recorded in the comments and response report, which will be included in the draft and final EIAR. The final EIAR will incorporate public comment received on the Draft EIAR and will be made available for public review with hard copies distributed mainly to the authorities and key stakeholders.

#### 9.7.2 NOTIFICATION OF ENVIRONMENTAL AUTHORISATION

All stakeholders will receive a letter at the end of the process notifying them of the authority's decision, thanking them for their contributions, and explaining the appeals procedure.

#### 9.7.3 CONSULTATION WITH AUTHORITIES

It is envisaged that consultation with DEA will coincide with the compilation of the following key documents:

- DSR;
- <u>FSR;</u>
- Draft EIAR/EMPr; and
- Final EIAR/EMPR.

### **10 WAY FORWARD**

This FSR contains:

- A description of the existing and proposed activities;
- A description of the alternatives considered to date;
- An outline of the proposed process to be followed;
- Information on the proponent, EAP and stakeholders who have chosen to participate in the project;
- An outline of the environment in which the project falls;
- Information on the potential environmental impacts to be studied in more detail during the EIAR phase of the project; and
- Information on the proposed specialist studies to be undertaken.

A number of environmental impacts have been identified as requiring some more in-depth investigation and the identification of detailed mitigation measures, namely transport and air quality. Therefore, a detailed EIA is required to be undertaken in order to provide an assessment of these potential impacts and recommend appropriate mitigation measures.

The recommendation of this report is that detailed specialist studies for terrestrial ecology, wetlands and heritage are undertaken on the proposed project. The scope of work required in the EIA phase of the project is included in the PoS for EIA.

This FSR is available for review from the **8 June 2018**. All issues and comments submitted to WSP have been incorporated in the CRR of this FSR.

The FSR has been submitted to the delegated competent authorities responsible for authorising this project.

If you have any further enquiries, please feel free to contact:

WSP Environmental (Pty) Ltd Attention: Tutayi Chifadza PO Box 98867, Sloane Park, 2152 Tel: 011 361 1390 Fax: 011 361 1381 E-mail: Tutayi.Chifadza@wsp.com

### **BIBLIOGRAPHY**

- Department of Trade and Industry (2014), Wild Coast Special Economic Zone Feasibility Study & Business Plan.
- Hatch Africa (Pty) Ltd (2016), Coega Development Corporation Wild Coast SEZ Environmental Requirements.
- Wild Coast Special Economic Zone Strategy Document.
- King Sabata Dalindyebo Local Municipality (2016/17), Final Draft IDP Review.
- O.R. Tambo District Municipality (2017), Integrated Development Plan.
- Eco-Pulse Environmental Consulting Services, Adam Teixeira-Leite (2018), Proposed Wild Coast Special Economic Zone, Umthatha, Eastern Cape, Desktop Aquatic and Terrestrial Ecological Scoping Report (Ref: EP341-01).
- Active Heritage cc, Frans Prins (2018), Desktop Heritage Impact Assessment for the Proposed Wild Coast Special Economic Zone – Industrial Development EIA (Impact Assessment Phase), Eastern Cape.



# A EAP CV



## B EAP DECLARATION OF INTEREST AND UNDERTAKING



# C STAKEHOLDER COMMENTS AND DATABASE



# D PUBLIC PARTICIPATION REPORT



# E SPECIALIST STUDIES

### **E-1** AQUATIC AND TERRESTRIAL ECOLOGY REPORT



### **E-2** DESKTOP HERITAGE IMPACT ASSESSMENT



## E LAND CLAIM COMMUNITY RESOLUTION