

# Appendix H.

## IMPACT ASSESSMENT

Submitted in conjunction with final Basic  
Assessment Report for:

### Proposed Tongaat Sand Mine

DMR Ref: **KZN 30/5/1/3/2/10550MP**

Prepared on behalf of Tongaat Sands (Pty) Ltd  
by ETC-Africa



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# IMPACT ASSESSMENT

## 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

### 1.1. Comments received from Department of Agriculture, Forestry and Fisheries



agriculture,  
forestry & fisheries

Department:  
Agriculture, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

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24 July 2018

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**Attention:** Mr. Edward Rice

**COMMENTS:** DRAFT BASIC ASSESSMENT REPORT – TONGAAT SAND MINING (PORTION 164 OF FARM LOT 49 NO. 862, LOWER TUGELA, ETHEKWINI METRO)

**SAMRAD REFERENCE NUMBER:** KZN30/5/1/3/2/10550MP

Trends analysis for land use of the area being applied for indicates that it was once a forested area. With continuous changes in land use; the area got disturbed whilst on vegetation succession stage. Mining activities to be specific have been carried out when the area is recovering; creating confusion on how an applicant intend rehabilitation during mining closure. As this is not the first time that the area has been mined, an applicant is required to provide clear plan of how rehabilitated areas will remain conserved should there be other mining activities introduced after several years of closure. In addition, how the adjacent remnants of forests will be preserved; and control of alien invasive plants from dominating such patches especially alone point A and R1.

Based on the footprints of the proposed activity, it may not cause damage to the indigenous trees protected trees under the National Forests Act (Act No. 84 of 1998). However, it may speed up invasion by alien species which are capable of suppressing the native species and completely alter the environment. Therefore, the Department of Agriculture, Forestry and Fisheries (DAFF) request an applicant to provide a plan for issues highlighted above and considering other environmental legislation.

## **2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES**

### **2.1. Impacts that may result from the planning and design phase**

The planning and design phase includes no onsite work or environmental risks. Planning and design are largely desktop exercises.

### **2.2. Impacts that may result from the construction/operational/decommissioning phases**

The table below identifies the potential impacts identified for the construction, operation and decommissioning phase of the proposed Tongaat Sand Mine.

The potential impacts are described and assessed for significance. Significance is assessed by scoring each impact on the basis of four variables; probability, severity, duration and spatial implications.

On the understanding that a significant impact is one which, whether in isolation or in combination with other impacts, could have a material influence on the decision-making process, including the specification of mitigation measures; significance in this report is scaled according to impact scores as follows:

- **Low (scoring 9 or less)**
- **Medium (scoring between 10 and 15)**
- **High (Scoring 16 or more)**

The four variables, with their score criteria are detailed below:

#### **Frequency / Probability**

**(Frequency or likelihood of activities impacting on the environment)**

- **1: Almost Never / impossible**
- **2: Very seldom / highly unlikely**
- **3: Infrequent / Seldom**
- **4: Often / Regular**
- **5: Daily / Highly regular**

#### **Severity**

**(Degree of change to the baseline environment in terms of reversibility of impact; sensitivity of receptor, duration of impact and threat to environment and health standards)**

- **1: Insignificant / not harmful**
- **2: Small / potentially harmful**
- **3: Significant / slightly harmful**
- **4: Great / harmful**
- **5: Disastrous / extremely harmful**

#### **Duration**

**(length of time over which activities will cause change to the environment)**

- **1: One day to a month**
- **2: One month to a year**
- **3: One year to ten years**
- **4: Life of project**
- **5: Post closure**

**Spatial Extent  
(Geographic coverage)**

- 1: Activity Specific
- 2: Site specific
- 3: Area
- 4: Regional
- 5: National

Nature of Impact	Frequency		Severity		Duration	Spatial extent	Impact	Significance
	Unmitigated	Mitigated	Unmitigated	Mitigated				
<b><u>Construction Phase</u></b>								
Traffic and access	2	2	2	1	2	2	7	Low
Soil erosion	4	2	4	2	2	2	8	Low
Surface water	5	4	5	3	2	3	12	Medium
Groundwater	5	2	4	1	2	3	8	Low
Noise and Disturbance	5	4	3	2	2	2	10	Medium
Destruction of Flora	4	2	3	2	2	1	7	Low
Disturbance of Fauna	4	3	4	2	2	2	9	Low
Waste and litter	5	2	3	1	2	2	7	Low
Visual Impacts	5	4	5	3	2	3	12	Medium
<b>Average</b>							<b>9</b>	<b>Low</b>
<b><u>Operational Phase</u></b>								
Traffic and access	5	4	3	2	3	2	11	Medium
Soil erosion	5	4	5	3	3	3	13	Medium
Surface water	5	5	5	4	3	3	15	High
Groundwater	5	3	4	3	3	3	12	Medium
Noise and Disturbance	5	4	4	3	3	3	13	Medium
Destruction of Flora	4	3	4	2	3	3	11	Medium
Disturbance of Fauna	4	3	4	3	3	3	12	Medium
Waste and litter	5	2	3	1	3	2	8	Low
Visual Impacts	5	5	5	4	3	3	15	High
<b>Total</b>							<b>12</b>	<b>Medium</b>

<b><u>Decommissioning Phase</u></b>								
<b>Traffic and access</b>	2	2	2	1	2	2	7	Low
<b>Soil erosion</b>	4	2	4	2	2	2	8	Low
<b>Surface water</b>	5	4	5	3	2	3	12	Medium
<b>Groundwater</b>	5	2	4	1	2	3	8	Low
<b>Noise and Disturbance</b>	5	4	3	2	2	2	10	Medium
<b>Destruction of Flora</b>	4	2	3	2	2	1	7	Low
<b>Disturbance of Fauna</b>	4	3	4	2	2	2	9	Low
<b>Waste and litter</b>	5	2	3	1	2	2	7	Low
<b>Visual Impacts</b>	5	4	5	3	2	3	12	Medium
<b>Total</b>							<b>9</b>	<b>Low</b>