



SOCIO-ECONOMIC IMPACT ASSESSMENT

AS PART OF THE APPLICATION FOR THE AMENDMENT
OF THE EXISTING MINE RIGHT HELD BY TJA NALEDI FOR
THE MINING OF SAND, TO INCLUDE AGGREGATE ON
PORTION 4 OF THE FARM WOODLANDS 407, NGWATHE
LOCAL MUNICIPALITY, FREE STATE PROVINCE

APPENDICES

PREPARED BY:

Enviroworks

Block B2, Edison Square,
c/o Century Avenue & Edison
Way
Century City, 7446

Tel. 021 527 7084
elbi@enviroworks.co.za;
michael@enviroworks.co.za

Coastal Environmental Services

The Point, Suite 408,
76 Regent Road
Sea Point

Tel. 021 045 0900
m.talbot@cesnet.co.za

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APPENDIX A: INTERVIEWS AND LITERATURE USED

Interviews undertaken in 2018 for Barrage Bulk Sand Mining Right Amendment

- Gavin Aboud, Protect Vaal Eden Committee, 26/11/2018
- SPH Kundalila, 27/11/2018
- Renee Hartslief, Ephraime Mosibi, Mduduzi, Tshabalala, Thabang Lenka, Samsom Mokoena, 27/11/2018

Guideline Literature Cited:

- The National Development Plan (2030)
- Department of Environmental Affairs & Development Planning: Guideline for Involving Social Assessment Specialists in EIA Processes (2007);
- Department of Mineral Resources Strategic Plan 2014/19
- Free State Provincial Spatial Development Plan 2014
- Fezile Dabi District Municipality: Integrated Development Plan 2017-2022
- Fezile Dabi District Municipality: Rural Development Plan 2016
- Ngwathe Local Municipality: Environmental Management Framework (2013)
- Ngwathe Spatial Development Framework 2015/2016
- Ngwathe Local Municipality: Draft Review IDP 2018/19
- Frank Vanclay: International Principles for Social Impact Assessment (2003)

APPENDIX B: COMMENTS RECEIVED FROM I&APs

I&AP Comments Received Via Email

<p>Mariette Liefferink, CEO: Federation For a Sustainable Environment</p>	<p>Addressed in Section 7</p>
<p>Date: 22/11/2018</p>	
<p>Dear Michael</p> <p>I refer to our telephonic discussion this morning. I shall endeavour to accompany you on a site visit on Tuesday, the 27th instant.</p> <p>The following comments are submitted on behalf of the Federation for a Sustainable Environment. The FSE is a federation of community based civil society organisations committed to the realisation of the constitutional right to an environment that is not harmful to health or well-being, and to having the environment sustainably managed and protected for future generations. Their mission is specifically focussed on addressing the adverse impacts of mining and industrial activities on the lives and livelihoods of vulnerable and disadvantaged communities who live and work near South Africa's mines and industries.</p> <p>We unfortunately are not in possession of the approved EMPR. We therefore reserve the right to refine or augment our comments pending our perusal of the approved EMPR.</p> <p>GENERAL</p> <p>We request that the cumulative impacts of Barrage Bulk Sand Mine and the proposed and (unrehabilitated) historic namely Pure Source Mine, Goosebay and Winners Point and existing sand mines (Tja Naledi and Sweet Sensations) on e.g. the biodiversity, visual quality, tourism and eco-tourism, sense of place, etc. within the Vaaloewer area be assessed in the Socio-Economic Assessment.</p> <p>SENSE OF PLACE</p> <p>It is part of our law that the potential impact of a development on the sense of place of an area must be considered. In the case of Director: Mineral Development Gauteng Region and another v. Save the Vaal Environment and others 1999 (2) SA 709 (SCA) at 715C, the Supreme Court of Appeals with regard to a proposed mine on a wetland next</p>	

to the Vaal river, identified as an environmental concern the “...predicted constant noise, light, dust and water pollution resulting from the proposed strip mine will totally destroy the ‘sense of place’ of the wetland and the associated Cloudy Creek. Thus the spiritual, aesthetic and therapeutic qualities associated with this area will also be eliminated.”

This finding by the court established sense of place, as an environmental concern that can be impacted upon by development and that should be considered accordingly.

In view of the aforesaid, we request that the impacts of Barrage Bulk Sand Mine and the abovementioned proposed, historic and existing mines on the sense of place be assessed in the Socio-Economic Assessment. Sense of Place has an economic component hence the economic impacts of the loss of sense of place ought to be considered in the assessment. It should be noted that the Vaal River, the Vaaloewer area and the adjacent Vredefort World Heritage Site are tourist and eco-tourist hubs, which increase the sensitivity level. Recreational sightseers and tourists are highly sensitive to any changes in visual quality. We call for the visual and aesthetic quality evaluation of the area and the cumulative impacts (change in landform, vegetation, landscape, colour) of the proposed mine and existing mines on the scenic quality of the area.

BEST PRACTICABLE ENVIRONMENTAL OPTION

The Socio-Economic Impact Assessment must evaluate the Best Practicable Environmental Option.

The balancing of the negative environmental impacts versus the alleged short term social benefits (which have not accrued in the last period of mining to the local communities) and the economic advantages can only be assessed if the loss to the environment is evaluated. This appraisal ought take into consideration the opportunity costs.

Given the very high eco-tourism and tourism potential of the area , the Socio-Economic Assessment must include the strategic assessment of optimum, sustainable land-use for this area, the environmental sensitivity of the area, the overall environmental and socio-economic costs and benefits of mining as well as the potential strategic importance of the minerals to the country.

The Socio-Economic Assessment needs to identify whether mining is the optimal land use, whether it is in the national interest for that deposit to the mined in that area and

<p>whether the significance of unavoidable impacts on biodiversity, tourism, eco-tourism and sense of place are justified.</p> <p>We request that the Socio-Economic Assessment furthermore determines whether there are no alternative deposits or reserves that could be exploited in areas that are not tourist and eco-tourist priority areas and evaluates the proposed mining in comparison with other reasonable/feasible alternative land uses in order to show that mining would be the optimum sustainable land use in the Vaaloewer area as well as a detailed assessment and evaluation of the potential direct, indirect and cumulative impacts of mining on biodiversity and ecosystem services in order to show that there would be no irreplaceable loss or irreversible deterioration, and that minimising, rehabilitating, and offsetting or fully compensating for probable residual impacts would be feasible and assured, taking into account associated risks and time lags.</p> <p>This includes an assessment of the opportunity costs, e.g.</p> <ul style="list-style-type: none"> o Understanding the value of the foregone opportunity; o The achievement of the desired aim/goal for the specific area; o Optimising of positive impacts; o Minimising of negative impacts; o Equitable distribution of impacts; and o The maintenance of ecological integrity and environmental quality. <p>Applying the “opportunity cost” principle would change the question being asked, namely, by placing a positive duty upon the decision maker to consider if the proposed development will constitute the best use of the resources (i.e. the best practicable environmental option).</p>	
<p>Gavin Abound, Chairperson of Protect Vaal Eden Committee Date: 21/11/2018</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Addressed in Sections 1, 6 and 7.</p>
<p>Good Day Michael,</p> <p>I hope you are well?</p> <p>Please see attached in preparation for our meeting.</p>	

These photos were taken on Monday.

Kind Regards

Email as attached (Dated – 20/11/2018):

Good Day Zizo,

I hope you are well?

Please see attached photos.

This was as a result of yesterday's wind. In some instances babies had to be evacuated as they could not breathe.

Please forward this to the consultant that is dealing with dust.

At the meeting he said to me he wanted to talk to me, but this did not happen. Please send me his contact details,

Kind Regards

Gavin Aboud

Photographs as attached:







Date: 26/11/2018

Good Day Elbi and Michael,

Hope you are well?

Nice to meet you guys.

Attached are documents that I feel you need to read.

Many thanks

Kind Regards

Attachments:

Due to the size of attachments received in this email, they have not all been included. A summary of the Protect Vaal Eden Objections has been included below. The Following attachments were received and can be accessed at <https://enviroworks.co.za/public-participation/>:

- 20180425ProtectVaal EdenObjections_TjaNalediSection102Application
- 20180612ReplyToDMR_TjaNalediInspection12April
- Tja Naledi Meeting Minutes 21 April 2018.01
- Tja Naledi non-compliance notice

Summary of Protect Vaal Eden Objections:

Objections to Tja Naledi Beafase Investment Holdings Section 102 Amendment – Protect Vaal Eden Committee

Protect Vaal Eden,
P.O. Box 14185
Zuurfontein
1912

The Regional Manager: Mineral Regulation Branch,
Free State Region,
Department of Mineral Resources,
Private Bag X33,
WELKOM
9460

WITHOUT PREJUDICE AND THE RESERVATION OF ALL OUR RIGHTS

Dear Mr Mulaudzi,

RAISING OF OBJECTIONS RELATING TO VARIOUS ASPECTS OF AN APPLICATION FOR A SECTION 102 AMENDMENT TO THE MINING RIGHT OF TJA NALEDI BEAFASE INVESTMENT HOLDINGS (PTY) LTD. (TNBIH) ON PORTION 4 OF WOODLANDS 407, MAGISTERIAL DISTRICT OF PARYS .

INTRODUCTION

The abovementioned application, allocated Reference No FS 30/5/1/1/2/10020MR by your office, as well as a letter from Ms R.R. Mphaphuli of the Sub-Directorate Mine Environmental Management, DMR Free State (Ref No.: FS 30/5/1/2/3/2/1 (10020) EM), requesting additional information regarding the Basic Assessment Report and the Environmental Management Programme required for this application, has reference.

Besides the applicable legislation cited where relevant in text to follow, other documentation referred to in this letter are the:

1. Background Information Document (BID) prepared by Yolandie Coetzee of Greenmined Environmental.
2. Final Basic Assessment Amendment Report (FBAR) prepared by Yolandie Coetzee of Greenmined Environmental.
3. Comments And Response Report Vaal Oewer Rate Payers Association (Protect The Vaal Committee) by Yolandie Coetzee of Greenmined Environmental.

We thank you and Ms Mphaphuli, for instructing the Directors of TNBIH and Greenmind Environmental's EAP, to consult with our committee and to give us a minimum of 30 days to respond. However, for reasons outlined in this letter, we are of the view that the Public Participation Process & Basic Assessment Process, did not comply with the NEMA Act and Regulations in key aspects.

We therefore respectfully request that the complete public participation process is repeated in order to give the 800+ I&APs and the residents of Vaaloewer's Informal Settlement, registered during the Goosebay Farm PPP, the opportunity to fully participate in this PPP as is our constitutional right in our participative democracy.

BACKGROUND

Who we represent:

Protect Vaal Eden (PVE) is a community based organisation that represents about 800 interested and affected parties (e.g. residents from the Vaal Eden, Lindequesdrift, Vaaloewer, Parys and Vredefort areas, community members, etc.) registered for Goosebay Farm's mining right application. The existing community organisations who have combined resources to form PVE are the:

- Vaaloewer Ratepayers Association (VRA)

<p style="text-align: center;"><i>Objections to Tje Naledi Beafase Investment Holdings Section 102 Amendment – Protect Vaal Eden Committee</i></p> <ul style="list-style-type: none"> • Lindequesdrif Community Police Forum (LCPF) • Friends of the Vrededorst Dome (FoVD) who also represents Vaal Eden residents. <p>The meeting that was held on Saturday 21 April 2018 in Vaaloever was with the Management Committee of PVE. Although we have been mandated by the organisation to do certain work on behalf of the organisation, we cannot speak on behalf of all 800+ I&APs.</p> <p>Any public participation process will have to include all those I&APs who wish to participate, which in our view, is the purpose of a Public Participation Process (PPP). We do not have the time and funding to conduct our own PPP on behalf of the applicant. That is the domain of the applicant's appointed EAP, who in our view, have severely neglected her legal duty to conduct a proper PPP as required by the relevant legislation.</p> <p>SUMMARY OF OUR KEY OBJECTIONS AND REQUESTS Our key objections to 1) the <u>public participation process</u> followed (Objection 3), 2) the <u>content of the Bid and BAR documents</u> supplied by Greenmined Environmental (Objections 1, 4, 5, 6 & 7) as well as 3) the <u>current land zoning</u> which does not allow any mining activity (Objection 2), are covered in more detail in the MAIN APPENDIX: Detailed Objections starting on page 10.</p> <p>Please note, that this is not a detailed response to these documents as we have not participated in a complete public participation process. The objective is rather to point out the major flaws in the current process and to give substantive reasons why the Public Participation Process has to be repeated in it's full extent with all potential I&APs who wish to participate.</p> <p>In summary, the key objections and requests based on each respective objection, are the following: 0.1. OBJECTION 1: Incomplete Policy and Legislative Context in FBAR. Regulations 3 (1) (e) (i) and (ii) as well as regulation 41 (2) of the NEMA EIA Regulations, 2014 as amended, clearly implies that besides applicable legislation and regulations, applicable guidelines supporting the acts and regulations listed, are also key components of the policy and legislative context required for any environmental assessment, the Basic Assessment Process in this instance. Therefore the Policy and Legislative Context of the BAR, should list AND use all applicable acts, regulations and guidelines.</p> <p>Some key omissions in the FBAR prepared by Greenmined are:</p> <ol style="list-style-type: none"> 1. No NEMA or MPRDA guidelines applicable to an environmental assessment, were listed. Some important examples are the <u>DEA Public Participation Guidelines of 2012 and 2017</u> and the <u>DEA (2017), Guideline on Need and Desirability (See Appendix B for an overview)</u>. 2. The <u>Spatial Planning and Land Use Management Act, 2013 (SPLUM act)</u> was also not listed. This is the national legislation which provides a national framework for spatial planning and land use management to all national, provincial and municipal government authorities. 3. If applicable, the following acts and regulations listed in the latest Goosebay Farm's BID, could also be relevant: <ol style="list-style-type: none"> (a) The National Environmental Management: Waste Act (NEM:WA), 59 of 2008, and supporting regulations for a waste management license required for waste related activities. (b) The DWS National Water Act (NWA), 36 of 1998 and supporting regulations as the proposed project may also require a water use license for anticipated water uses on the site (see Objection 6). (c) The National Environmental Management: Air Quality Act (NEM:AQA), 39 of 2004 to obtain an air emission license from the Fezile Dabi District Municipality (FDDM). <p>REQUEST 1: These omissions has led to a number of defects in the contents of the BAR document as further described in other objections. We therefore respectfully request that the documentation referred to above, and other applicable guidelines and legislation, are:</p> <ol style="list-style-type: none"> 1. Listed in the Policy and Legislative Context section in a revised BAR; and 		
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	<p><i>Objections to Tja Naledi Beefeas Investment Holdings Section 102 Amendment – Protect Vaal Eden Committee</i></p> <p>2. Used as specified in these documents to revise the BAR after a new public participation process has been rescheduled.</p> <p>0.2. OBJECTION 2: Mining activity in an area not zoned for mining: The land where mines are situated has, according to our knowledge, not been rezoned for mining. Any mining activity in this area is therefore illegal until the area has been rezoned to include mining. We base our reasoning on Act No. 16 of 2013: Spatial Planning and Land Use Management Act, 2013 (Commencement date: 5 August 2013) (SPLUM Act, 2013) and the Free State Ordinance for the time period prior to the commencement of this act.</p> <p>In our interpretation of the SPLUM Act, 2013, the rezoning process has not been followed (See copy of Clauses 26 (5) & 28 (2) of Act in APPENDIX A1). Rezoning requires a full public participation process and can only be approved by the Municipal Council (Clause 28 (4)). Any activity not allowed by the current zoning is illegal. In addition, the approval of a mining right, mining permit, prospecting right etc. can, in our view, only be approved conditional on the prior rezoning of the land where mining activity will take place. Without such a pre-condition, an approval could be interpreted by applicants that they are allowed to mine, when the SPLUM Act, 2013, clearly states that this is illegal.</p> <p>REQUEST 2: (a) Please provide proof that the Vaal Eden area on all farms where mining has been approved, has been properly rezoned for mining (b) If such proof cannot be provided, we respectfully request that all mining activity in the Vaal Eden area is ceased until the land has been rezoned properly and that all actual illegal activity is dealt with as prescribed by the SPLUM act. (c) If <u>conditional approval</u> for TNBH's mining right was given by the DMR, please provide proof of this. The same should be done for all other mining approvals done. (d) If proof of the required rezoning, which followed the correct legislated procedures in terms of the SPLUM act can be provided, this objection is irrelevant. If such proof exist, kindly forward that to our committee.</p> <p>0.3. OBJECTION 3: Non-compliance of Public Participation Process: The Public Participation Process followed by Greenmined Environmental in this environmental assessment did not, in our view, comply with the relevant legislation in several instances. A clear indication of this is that SLR Consulting generated a list of 800 + registered I&APs in the beginning of this year for Goosebay Farm's mining right application. In contrast, in nearly the same period and for a similar neighbouring mine, Greenmined Environmental produced a list of only 8 I&APs (excluding owners of TNBHs and relevant government departments in the Free State) for the Tja Naledi Beefeas Holdings Pty (Ltd) Section 102 application.</p> <p>The implications of regulation 41 (2) of the NEMA EIA Regulations, 2014 as amended, are:</p> <ul style="list-style-type: none"> • All methods of giving notice must be complied to. • Any relevant guideline applicable to public participation must be taken into account. The key guidelines in this regard are the <u>DEA Public Participation Guidelines of 2012 and 2017.</u> <p>The most obvious instances of non-compliance are:</p> <p>(a) Not all neighbours on adjacent properties have been contacted through registered letters as stipulated in <u>Regulation 41(2)(b)(ii) (EIA R17).</u> The farm owners known to us are:</p> <ul style="list-style-type: none"> • Craig Richardson, the owner of Tahiti Estate on the bank of the Vaal River in Gauteng Province bordering the mining site. • The owners of all other properties adjacent to Tahiti Estate on the Farm Boschdraai 575 in Gauteng Province which borders the farm on which the mine is situated. <p>(b) Me Rense De Jong Hartsief, joint owner of the farm Savannah on the Vaal Eden Road in direction of Parys, co-chair of Friends of the Vredefort Dome and a member of our committee, has</p>	
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Objections to Tja Naledi Beafase Investment Holdings Section 102 Amendment – Protect Vaal Eden Committee

proof, which was acknowledged by Yolande Coetzee of Greenmined, that she should have been registered as an I&AP for the original mining right application. As a registered I&AP, she should have been notified of this section 102 application. This is an indication of the flaws in the PPP conducted for TNBIH's original mining right application which was done by Doreen Environmental. As a consequence of this, she wasn't notified of the current Section 102 application (Regulation 42 (a) & (b) of EIAR17).

(c) The DEA 2012 Public Participation Guideline clearly stipulates in section 4.3 (c) (i) that if a notice was sent by registered post, the address of the person the notice was sent to, must appear on the copy of the registered mail receipt provided as proof of such notifications. Only a code, not an address, is shown on the copies of the Postnet receipts in Section E1 of the FBAR document.

(d) The same guideline clearly states that if the impact of mining will affect inhabitants of neighbouring municipalities or provinces that the notice of the environmental impact assessment must be published in a national newspaper (Regulation 41(2)(d) of EIAR17). In addition, the relevant government departments in neighbouring provinces (Gauteng & Northwest), district municipalities (Sediberg DM & Dr Kenneth Kaunda DM) and local municipalities (Emfuleni LM & JB Marks LM), in this case, must according to the regulation be contacted with written notices (Regulation 41(2)(b)(v) of EIAR17). Neither of these notification methods were used, no proof is included in the FBAR compiled by Greenmined.

The fact that the DMR Free State requested Greenmined Environmental EAP to arrange a meeting between our committee and the owners of Tja Naledi Beafase Investment Holdings (TNBIH), can be regarded as an admission of the relevancy of this regulation to the current Section 102 application. However, the simplest proof that this regulation is applicable, is again Tahiti Estates (see (a) above), an estate in Gauteng which borders on Portion 4 of Woodlands 407, the farm the mine is situated on. As they are in Gauteng, a notice should have been published in a national newspaper.

In the DETAILED OBJECTIONS, we provide 6 other reasons why the proposed mining activity impacts on the three other provinces. This includes the fact that the route followed by mining trucks lead into Gauteng, and possibly North West, which has already caused severe damage to roads in Gauteng. Another key reason is the negative integrated cumulative impact of mining in this area on property prices of Vaaloeuw and Lindequesdrif, which in turns has a negative impact on the economy of Gauteng and North West. See Objection 5 for more detail on the integrated cumulative impact of 2 or more mines in close proximity.

(e) Adjacent to Vaaloeuw, on the border between Gauteng and Northwest, but still in Gauteng, lies an informal settlement. The employed residents of this settlement work on farms, agricultural holdings and businesses in Lindequesdrif as well as households and businesses in Vaaloeuw. Some of the residents run their own small businesses which are dependent on the local economies mentioned. Any negative impact on the local economies will also negatively impact on residents of the informal settlement as the mines in Vaal Eden, Ngwathe will not employ them or economically benefit them. Regulations 41(2)(d) and (e) of EIAR17 are relevant to people in this group.

(f) Lastly, the DEA Public Participation Guidelines of 2017 (PPG17) provides a decision matrix in table 1 of Section 6, Guidance On The Level Of Public Participation. This is used to determine whether extra steps need to be included in the PPP or whether only the minimum requirements for the PPP are required. As already seen above, especially in point (d), in our view the current PPP does not even comply to the minimum requirements for a PPP set by the EIA 2017 regulations. Table 1 list 3 main categories with 16 different situations that might be applicable in an area with regards to an Environmental Authorisation. In our view, at least 14 of these situations are applicable to our area and the current environmental authorisation process. That indicates to us that the

<p style="text-align: center;"><i>Objections to Tja Maledi Beafase Investment Holdings Section 102 Amendment – Protect Vaal Eden Committee</i></p> <p>public participation process should be as wide and as inclusive as possible. In response to an email from committee member Mr T Wehmeyer, GE found only 1 category to be applicable.</p> <p>Of course, we can dispute most of these points as it seems that the EAP is not familiar enough with the area and it's history to make an informed judgement. However, what is more important is that this table with their response should have been included in the original BAR. This table should have been used by them in the <u>planning stages of the PPP</u>, not when it's almost over. Which again supports our view with regards to objection 1.</p> <p>REQUEST 3: (a) As public participation is a key aspect of an environmental assessment, our main request is that the complete Public Participation Process should be repeated in order to <u>provide interested & affected parties who were not notified, the opportunity to fully participate in the PPP</u> as specified by the applicable legislation. (b) GE should use the applicable PP guidelines to plan the PPP thoroughly. The Protect Vaal Eden committee are more than willing to assist in this process where we are able to. (c) Reference to these guidelines should also be included where relevant in the FBAR.</p> <p>0.4. OBJECTION 4: Equipment not specified in original EMPR on the mining property: On 10 April 2018 we sent an email to the DMR Free State Regional Manager to report mining equipment on TNBIH mining site which are not listed in their EMP. Please see Appendix C for a copy of this email. The equipment observed were:</p> <ul style="list-style-type: none"> • 1 x orange mobile crushing and screening plant • At least 4 big yellow CAT trucks which do not have registration numbers as they are opencast mining vehicles only used on mines. Therefore these trucks could not belong to clients collecting sand and should therefore not be on site. <p>In our view, TNBIH are acting as if their Section 102 application was already approved. Which does not instill confidence that they will abide by their approved mining plan.</p> <p>REQUEST 4: (a) These transgressions should count against TNBIH with regards to the approval of their Section 102 Application. If they cannot abide by their current EMP, what proof is there that they will do so in future? (b) The CAT Trucks on site, and an operating front-loader also is a clear indication of mining activity. In the absence of a legal rezoning process, this mining activity, as pointed out in Objection 2 above, should be regarded as illegal. We request that all mining activity is halted until a proof of legal rezoning can be provided to our committee.</p> <p>0.5 OBJECTION 5. The assessment of the full <u>Cumulative Impact</u> of all mining in Vaal Eden on the environment and local economy (<u>opportunity cost</u>) is highly inadequate. <u>Integrated Cumulative Impact</u> It is our view that this <i>Basic Assessment Process for the Section 102 amendment</i>, as well as the EIA for the mining right application, did not assess the full historic, current and possible future cumulative impact from all the mines in the area, and its consequences for opportunity costs to surrounding communities, in relation to the activities under TNBIH's current mining right and section 102 amendments requested in the area. This critical omission could have been avoided if correct use was made of the DEA (2017) Guideline on Need and Desirability.</p> <p>The integrated cumulative impact (past, present and projected future) of all 3 mines, could have a <i>major negative impact</i> on the sustainable (/ justifiable) development of the Vaal Eden area, and the areas in Gauteng (Vaalower and informal settlement, Tahiti Estates, Pont De Val etc.) and Northwest (Lindequedrif). There are <i>no direct economic benefits</i> from any of these mines to any of the surrounding areas, not even Vaal Eden which is part of Ngwathe LM. In order to determine the exact impact, the resulting opportunity costs (lost economic and other</p>	
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opportunities) to the surrounding communities from the integrated cumulative impact of all 3 mines, should be determined through a consultative process (in a new PPP) by a specialist.

The assessment of the cumulative impact is a key aspect of any EIA related to mining. References to cumulative impacts are made in the NEMA, NEMA EIA Regulations and the DEA 2017 Guideline on Need and Desirability. In Appendix 1 of the EIA regulations it is stated as one of the objectives of the Basic Assessment Process (BAP) and that assessment of the cumulative impact should be included in the Basic Assessment Report (BAR).

It is important for the following reasons:

- Determining the requirements and procedures for mine closure, the *apportionment of liability for mine closure and the sustainable closure of mines with an interconnected or integrated impact resulting in a cumulative impact* (NEMA Clause 24 (5) (b) (viii)).
- Determining the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project *in relation to its location and existing and other planned developments in the area* (DEA 2017 Guideline on Need and Desirability section 1.13, which should be used for all environmental assessments).
- Determining the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project *in relation to its location and other planned developments in the area* (DEA 2017 Guideline on Need and Desirability section 2.22, which should be used for all environmental assessments).

Integrated cumulative impacts are those impacts which are the combined cumulative impacts from mines in the same area such as the 3 mines in the Vaal Eden area. The following are of relevance:

- The total hectares under mining in the Vaal Eden area, if all mining rights are authorised, will be approximately 1,408 hectares (see APPENDIX E: Brief overview of historic and current mining activity in the Vaal Eden area for more detail).
- As all the sand mines seem to be applying to include gravel and diamond mining with silica sand mining as well as onsite processing, the integrated cumulative effect of the opencast mines, which includes dust and noise pollution and severe damaging of roads, will create (and has created) highly unpleasant living conditions for surrounding neighbours and have a destructive impact on the tourism industry, agriculture and the property market. As enforcement is already problematic, local inhabitants cannot trust promises of future responsible mining and strict enforcement of legislation.

The integrated cumulative impact is not addressed properly in this FBAR and most probably not at all in any of the EIAs already done for mines in this area. The section on Cumulative Impacts in the FBAR (table 18 on page 74) only covers the degradation of the Vaal Eden Road stating that "A fund will be set aside (with the two similar mines in close vicinity of the Tja Naledi) to maintain the serviceability of the road verge where the trucks approach or depart from the main road." If the "main road" is Boundary Road, then it is ONLY the road verge where the Vaal Eden Road meets with Boundary Road. The transport trucks of the mines' customers causes a lot more damage to a much longer route.

Opportunity Costs

In paragraph page 8 of the DEA 2017 Guideline on Need and Desirability, the following is stated: "Financial viability should be considered within the context of justifiable economic development, measured against the broader societal short-term and long-term needs. While the financial viability considerations of the private developer might indicate if a development is "do-able", the "need and desirability" will be determined by considering the broader community's needs and interests, as reflected in an IDP, SDF and EMF for the area, and as determined by the EIA.

While the importance of job creation and economic growth for South Africa cannot be denied, the Constitution calls for justifiable economic development. The specific needs of the broader

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community should therefore be considered together with the opportunity costs and distributional consequences in order to determine whether or not the development will result in the securing of ecological sustainable development and the promotion of justifiable social and economic development – in other words to ensure that the development will be socially, economically and environmentally sustainable.”

In the text box on pages 16 & 17 of the DEA 2017 Guideline on Need and Desirability (GND2017), opportunity costs is defined and elaborated on:

“Opportunity costs refer to the process of *considering and comparing the ecological, social and economic costs, implications and opportunities* of different alternatives. Choosing a specific option, alternative or path may result in other options (and its associated opportunities) being foregone - the loss of these opportunities are referred to as the opportunity cost of the preferred option. ”.

The only attempt to assess opportunity costs in the FBAR is contained in *Appendix 10 - Comparative Land Use Assessment*. This assessment done for the original mining right application by the previous EAP from Dorean Environmental Services, only compares the economic benefits of using the farm for either sand mining as proposed or to continue with cattle farming. No mention is made of the opportunity costs impacting on the rest of the community. It focuses on the opportunity costs for only the owners of the farm, no reference is made to cumulative impacts and opportunity costs to other surrounding communities.

The biggest flaw in this comparative land use assessment in the current FBAR, is that it does not contain any reference to the additional impact of the section 102 changes. Therefore no attempt was made to update the document in terms of gravel and diamond mining and processing requested. The Comparative Land Use Assessment was done in 2015, before the commencement of GND2017, which is clear evidence that GND2017 was not used for this BAP. See extract from text below:

“Tja Naledi Beafase Investment Holdings intends to operate a small sand mining operation near Vaal Eden in the Parys district of the Free State Province. This land use assessment is part of the environmental impact assessment (EIA) and environmental management programme (EMP).”

REQUEST 5:

In order to determine the exact integrated cumulative impact, the resulting opportunity costs (lost economic and other opportunities) to the surrounding communities from the integrated cumulative impact of all 3 mines, should be determined through a consultative process (in a new PPF) by a specialist.

Therefore,

(a) The assessment of the integrated cumulative impact and the consequent opportunity costs, should also cover all of the following and any other relevant issues raised during future public participation:

- Impact on and damage of Vaal Eden Road as well as the common access routes into and from the Free State, Gauteng and the Northwest. These routes needs to be identified clearly.
- The impact of peak traffic of all three mines on local residents using these routes. The mining trucks are much bigger vehicles and it is unlikely that the Vaal Eden road and other routes were designed to carry this traffic.
- The cumulative water, dust and noise pollution as well as soil degradation at maximum operation of all three mines.
- The net socio-economic impact on the area (all three provinces), with reference to opportunity costs, taking in consideration the economic contribution of the mines AND the current and future economic activity of all the business that will be affected by mining such as tourism, agriculture, the property market, retail, domestic employment, government taxes, mobile operators, Eskom, service industries etc if some of Vaaloewer and Lindequesdini residents move. This is a specialist study for which the input of a specialist such as a development economist is required.

	<p><i>Objections to Tja Naledi Beafase Investment Holdings Section 102 Amendment – Protect Vaal Eden Committee</i></p> <ul style="list-style-type: none"> • The possible current and future impact on water resources i.e. ground water and the Vaal River. • The cumulative health impact of dust created in light of recent legal judgement on silicosis. • As the area is ideal for tourism, the economic benefits of greater promotion of the tourism industry, should also be incorporated into assessments. There is a real possibility of extending the Vredefort Dome buffer zone and to use that and the many attractive features of this area, to boost the tourism industry. This is <i>another alternative</i>, with much more potential than the current no-go option of cattle farming, which should be considered. <p>(b) The section on Cumulative Impacts in the updated BAR, should be changed to incorporate the full spectrum of cumulative impacts identified during the new PPP in a consultative process. (c) if required, a new <u>Comparative Land Use Assessment</u> should be compiled by a specialist after the [integrated] cumulative impacts has been determined and assessed.</p> <p>It is clear to us that the FBAR <i>should be updated</i> to thoroughly assess the integrated cumulative impact and the consequent opportunity costs. In this new assessment, the <u>DEA 2017 Guideline on Need and Desirability</u> should be used by the EAP as intended by the DEA. Of course, this should be done during a rescheduled full Public Participation Process so that all I&APs views on opportunity costs, can be incorporated in the updated FBAR.</p> <p>0.6. OBJECTION 6: Water Usage License to be clarified & borehole registration record not supplied.</p> <p>In both the mining right application EMP and the latest BAR, it is stated that: (a) "No surface water will be used during the mining process as no washing [of sand] will take place." (b) "The only groundwater that will be used is from an <i>existing farm borehole</i> for domestic water supply and to control dust. <u>This borehole was registered with DWS by the previous owner of the farm. Records of this registration will be sourced and provided as soon as it can be obtained.</u>" The wording in the EMP and BAR is identical which implies that the information was copied from the EMP to the BAR.</p> <p>In terms of Section 21 (a) of the NATIONAL WATER ACT Act No 36 of 1998 (see APPENDIX D for Relevant extracts from this act), taking water from a water resource is regarded as a Water Use. Schedule 1 describes permissible Water Uses. In general this is for domestic use. The only permissible unlicensed agricultural use is for the watering of animals grazing on land. The previous water use of by the previous owner of the farm, could only have been for the watering of animals, as the farm was used for the grazing of animals, and domestic use. Therefore the use of dust suppression would be a new use for which, in our view, TNBIH will have to apply for a Water Use License, unless it can be proven otherwise.</p> <p>REQUEST 6:</p> <p>We respectfully request that: (a) a copy of the record of the borehole registration is sent to us as soon as it is available (b) the reasons for not applying for a water use license is reviewed to determine if water uses for mining, requires that TNBIH apply for a Water Use License in terms of the NATIONAL WATER ACT Act No 36 of 1998 (c) this review is included in a new BID and BAR (d) if this review indicates that a water use licence is required, TNBIH should apply for a Water Use License with the full public participation prescribed as determined by NEMA; and (e) all mining activity depended on a WUL is suspended until a WUL is approved.</p> <p>0.7. OBJECTION 7: Blasting included in BID, omitted from BAR In the BID the following is stated under the heading NOISE.</p>	
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<p><i>Objections to Tja Naledi Beafase Investment Holdings Section 102 Ammendment – Protect Vaal Eden Committee</i></p> <p>"The noise generated form the mining machinery will be similar to noise generated along the Vaal Eden road by public vehicles, and by the adjacent sand mine (Pure Source Minerals Mining Co (Pty) Ltd. Blasting noise will be instantaneous and of short duration. This will only occur once every two to three weeks." In the latest BAR, no mention is made of blasting.</p> <p>Although Greenmind did respond to this issue in an email stating that during the Basic Assessment Process, it was found that blasting will not be required, this information should have been stated in the BAR i.e. that blasting will not be required and the reasons why not.</p> <p>REQUEST 7: (a) As we request a total new Public Participation Process, the updated BID and updated BAR should omit blasting so that I&APs do not spend their time on irrelevant issues. (b) If it is again determined that blasting will be required, the reason for that should be supplied in the new BID and BAR and the times of blasting should be indicated as well.</p> <p>Kindly acknowledge receipt hereof. We look forward to your response.</p> <p>Yours faithfully,</p> <p>GAVIN ABOUD</p> <p>CHAIRPERSON PROTECT VAAL EDEN & VAALOEWER RATEPAYERS ASSOCIATION EMAIL: gavinaboud@vodamail.co.za MOBILE: 083-281-5045</p> <p>Date: 11 May 2018</p>	
<p>Date: 27/11/2018</p>	
<p>Good Day,</p> <p>Your attention is drawn to the attached article, especially the reasons for voting against such mines. Please note effect on water.</p> <p><u>Attachments:</u></p>	<p>Addressed in Sections 6 and 7.</p>

Tot 55 000 m² bousand sal uitgehaal kan word

Stofstorm oor myn

Danie Keet
Die Stellenbosch-wynstreek word bedreig deur 'n aansoek om 'n sandmyn in die Koelenhof-omgewing te begin.

Die aansoek is vir 'n gedeelte op die Clover-plas wat op die R304 aangrensend aan wêreldbekende wyndraaiers soos Villiers, Simonsig en die Koelenhof-wynkelder gelê is. "Ons glo dat die mynbedrywighede 'n negatiewe impak op die karakter en gesondheid van die omgewing kan hê," sê Simon Grier van Villiers.

"Die toestaan van 'n mynpermiem om met mynbedrywighede te begin, sal onomkeerbare nadelige gevolge vir die landboukarakter, boerderybedrywighede en die sakebelange van aanslagreëde eiendom in die gebied inhou. Ons glo nie dit is in die beste belang van Stellenbosch nie." Aspekte waarom kommer ook bestaan, is besoedeling deur die sand wat kan rondwaai, die invloed op grondwater van die omgewing en die nadelige invloed op die landelike karakter van die Stellenbosch-wynbougebied.

"Ons is ook baie bekommerd oor die vermoede verliesdruk van swaar voertuie op die R304. Ons het vanjaar reeds 35 storttes op die pad gehad en dit gaan deur hierdie vrugmotors vererger word.

"Hulle moet die besige roete gereeld kruis om toegang tot die plas te kry. Dit kan in 'n rampoets ontbrand," het Grier gesê.

Volgens Petrus Coetzee van MP Coetzee Grondversterking, wat die myn wil bedryf, gaan hulle bousand oor 'n gebied van 5 ha uithaal en hulle verwag dat sowat 55 000 m² sand hier gemyn sal kan word. "Die sand is nie so fyn soos sand wat vir opvulling gebruik word nie en behoort geen gevaar van stof of ander besoedeling in te hou nie.

"Ons gaan ook nie dag en nag met ons vrugmotors daar ry nie, aangesien die sand op bestelling gemyn word – anders as in die geval met vulsand.

"Ons het al die wettlike voorskrifte nagelees en wag nog net vir die hersonering van die munisipaliteit van Stellenbosch.

"Ek kan met 'n skoon gewese as dat ons as gevolg die weg optree en nie die omgewing sal skade nie. Ons gaan selfs die gebied rehabiliteer nadat ons klaar die sand gemyn het.

"Dit is in elk geval dooie sand waarin niks groot nie," het Coetzee gesê.

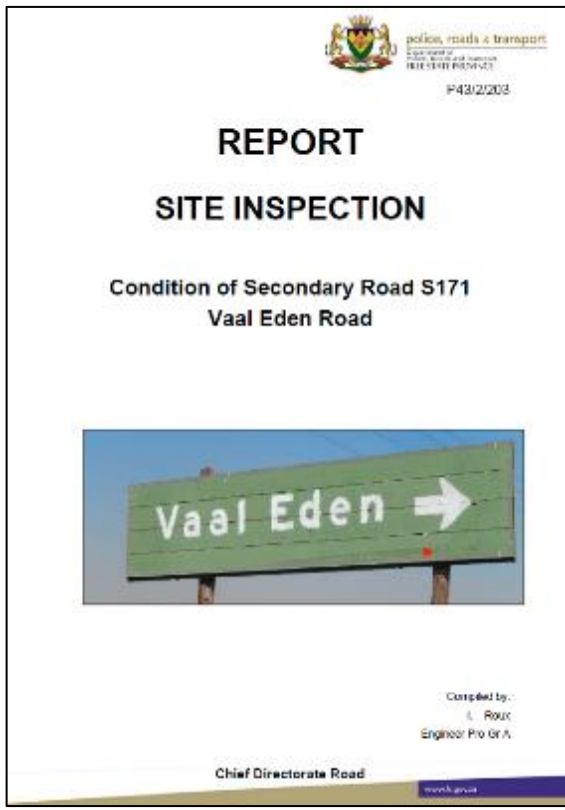
Hieroor is teenkantiing teen saai

- Mybedrywighede is nie 'n primêre grondgebruik in die landbousector nie.
- Sandmyns bied min wêreldelike en is gewoonlik korttermynbedrywighede.
- Sand is 'n nie-herbruikbare hulpbron wat nie vervang kan word.
- Die grond waar die sand gemyn gaan word, is geskik vir wingerdhou.
- Die skep van stof met bedrywighede kan nadelig op die omgewing wees.
- Mybedrywighede sal die hidrologie en grondwater van omgewing versuur.
- Geraasbesoedeling deur swaar gereedskap en mynroete wesenlike moontlikheid.
- Die mynbedrywighede word nie deur boere in die omgewing ondersteun nie.
- As sand verwyder word, kan dit samekling gee tot watererosie, die vernietiging van die grondstruktuur en verandering van die waterafloei, wat weer 'n negatiewe en onomkeerbare invloed op wêreldelike wêreldelike kan hê, en as die verwyder word, sal die enigste bewerkbare grond ook verlore gaan.

Renee Hartsliet

Date: 29/11/2018

A copy of a site inspection report of the S171 Road was sent to Enviroworks by Renee Hartsliet. The full report can be accessed at: <https://enviroworks.co.za/public-participation/>



Addressed in Sections 6 and 7.

APPENDIX C: MINUTES OF INTERVIEWS CONDUCTED WITH I&APs

Barrage Bulk Sand Mine – Socio-Economic Impact Assessment	
Meeting with Gavin Aboud, Vaal Oewer resident and Chair Person of Protect Vaal Eden Committee.	
Section 102 Mining Right Amendment over Portion 4 of the farm Woodlands 407 (437.8330ha), which falls in the Ngwathe Local Municipality in the Fezile Dabi Magisterial district, Free State Province	
Date:	26/11/2018
Time:	10:15 – 11:30
Venue:	Paramount Trailers, Johannesburg.
Attendance	
Elbi Bredenkamp	EB Enviroworks Environmental Consultants
Michael Leach	ML Enviroworks Environmental Consultants
Gavin Aboud	GA Vaal Oewer resident/Protect Vaal Eden Committee
1.	Welcome/Introduction Enviroworks have been appointed to conduct a Socio-Economic amendment for the proposed Section 102 Mining Right Amendment over portion 4 of the farm Woodlands 407. This meeting was conducted as part of three meetings with I&AP's who wished to meet with Enviroworks in order discuss socio-economic issues related to the proposed amendment.
2. Gavin Aboud (GA)	Comment: GA stated that at a PPP meeting GA brought people to the meeting who should have been, but were not informed, of the initial mining right application for Barrage Bulk Sand mine. GA stated that at this Tja Naledi admitted that the public participation process for the initial mining right application was flawed. GA went on to say that all three mines (Barrage Bulk Sand, Goose Bay and Sweet Sensations) had exactly the same 8 people that signed [as I&APs] for the first application to the DMR. GA feels that the whole process was 'cooked' and that the mines collaborated and signed for each other.
Elbi Bredenkamp (EB)	EB stated that the mines would need to sign for each other, but that they couldn't leave others out.
GA	GA stated that what he asked them is, why, for the initial application, there were only 8 I&APs, but for the Section 102 he has a list of 1396 I&APs. GA stated that from the beginning the process was incorrect.
EB	EB asked if it was SLK that conducted the original mining right.
GA	GA said that Dorean conducted the original mining right for Barrage Bulk Sand. GA stated that SLK did the current Goose Bay application, and when they [SLK] followed the correct procedure and received the approximately 2000 I&APs, Mark Van Wyk fired them and appointed Shango, but didn't pay SLK.
EB	EB stated that at this stage things feel like all the mines have been against them [I&APs] from the first application. EB asked if they now all have mining rights.
GA	GA stated that Sweet Sensations and Tja Naledi have mining rights, but Goose Bay's right was stopped, hence their new application.
EB	EB clarified the names of the relevant mines.

GA	GA stated that they have signs up that are not legal. GA stated that they [I&APs] speak with the DMR and that Tja Naledi has a non-conformance against them. GA went on to say that Tja Naledi have ‘already begun with their nonsense’. GA stated that they are not mining according to their mining plan, they do what they want and have done no rehabilitation. GA stated that in a meeting he questioned Tja Naledi on the equipment that they are allowed and told them they had equipment not included in their mining plan. (Addressed in ‘Recommendations’ Section 7)
EB	EB stated that she worked for DMR and that the applicant needs to stick to their mining plan.
GA	GA stated that he can show photo’s of ADT’s on the site, which are not included in the mining plan. GA stated that they are not mining according to their mining plan and he consulted the DMR on this and DMR issued Tja Naledi with a non-conformance. GA feels, despite this, that Tja Naledi are continuing with their non-conformance. (Addressed in ‘Recommendations’ Section 7)
EB	EB stated that as she knows, if one has a mining plan, that plan needs to be approved and if one wants to deviate from it there needs to be a basic assessment and public participation. EB asked if audits had been conducted and stated that as part of their mining right they should conduct external audits at least annually.
GA	GA stated that this [audits] is another thing they have not done.
EB	EB asked, if Tja Naledi have a valid mining right.
GA	GA stated that they [I&APs] are saying it is not valid because the public participation process was flawed and they [Tja Naledi] admitted it.
EB	EB asked if, based on those grounds, if one could challenge a mining right.
GA	Stated that it can be done but that this costs money, because you must submit an appeal and then you must go to court and prove it. GA stated that they have the proof and the client [Tja Naledi] admitted it.
EB	EB recognised that this was one of the issues. EB then asked, if hypothetically, the mine did all the processes correctly according to their plan and did all the monitoring and auditing correctly, would it be an issue.
GA	GA stated that the mines would not be there then at all.
EB	EB asked the key reason for this?
GA	GA asked if we have seen the dust pictures. GA stated that several days back, during very windy conditions they had to evacuate babies. GA stated that noise was another issue. GA stated that from Craig Richardson’s farm one can hear all the noise form the mine. GA stated that the whole surrounding area has not been zoned for mining and that Tja Naledi have not re-zoned. GA stated that the neighbouring Goose Bay mine was in the process of re-zoning. GA stated that according to him they are mining illegally as they are mining on land zoned for agriculture. GA referred to the MacSands case. (Addressed in ‘Recommendations’ Section 7)
Michael Leach (ML)	ML showed GA a map and confirmed the adjacent mines.
GA	GA stated that a member of the community, who had to leave their house, had their house valued at 20 million, and the house was recently now valued at 12 million. GA mentioned some of the surrounding places and stated that all over are holiday properties were people want to come fishing. GA stated that according to Tja Naledi, they will only employ 10 people. GA felt that on just one of the farms 20 people would lose their work. GA stated that he would estimate that around 700 people would lose their jobs [due to the mines].
EB	EB wanted to confirm, that Tja Naledi had already started mining in the 1970’s.

GA	GA stated, that they had but not legally.
EB	EB asked why GA felt it was not legal, and were there not historical mining rights.
GA	GA stated that they [Tja Naledi] mined there historically, but without any approval. GA stated that, that was Dr. Stephen Jacobs' argument, that mining had taken place historically and thus was now legal. GA feels that it could not be legal, seeing as he felt the historical mining was not legal. GA stated that Enviroworks need to see the dust and hear the noise.
EB	EB stated that the issue is the cumulative impact created by the mines.
GA	GA stated that they have done a property evaluation for the area and valued the properties in the area at 1.5 billion and GA expects the property values to be devastated as a result of the mines. GA went on to say that even if the mines suppressed their dust, dust would still be created from trucks taking away sand as they are not using tarpaulins. GA raised the state of the S171 road and stated that the road was in a bad condition as a result of the vehicles frequenting the mines. GA stated that before the mines can go ahead with amendments etc. the three mines need to repair the road. GA stated that all the entrances to the mines are illegal. Gavin went on to say that the road was not designed for the weight of the trucks using it and that the low water bridges had been severely damaged as a result of the trucks. GA went on to say that according to the Ngwathe IDP the area is zoned for tourism and areas around Sasolburg are zoned for mining. GA stated that he has received emails, from the mines, threatening his life. GA stated that he thinks Tja Naledi do have a water use licence (for dust suppression) but he was not consulted in the application for it after asking to be consulted. (Addressed in 'Recommendations' Section 7)
EB	EB stated that she thought it was a general use authorisation. EB stated that she understands and said transparency is important. EB mentioned that municipalities are required to have an air quality plan, and asked where those plans are for the municipality and when last these have been reviewed.
GA	GA mentioned that there are three municipalities involved and when the wind blows it blows towards Gauteng. GA showed a video, taken from Vaal Oewer, and explained that in the area all one hears is birds, apart from the mines which are now heard.
GA	GA showed satellite pictures of the mine and showed where Pure Source mine have been mining outside of allocated areas. GA stated that he has got non-conformances issued to Sweet Sensations, Pure Source and Tja Naledi and stated that all of them do just as they want. GA asked how things will be any different if mines have not been adhering to mining plans in the past.
EB	EB stated, that Tja Naledi then need to acknowledge where they have been wrong and make right therefore. EB stated that Enviroworks are not Greenmined and issues that arise from the process need to be taken to Greenmined.
GA	GA stated that he has sent a report to the DMR.
EB	EB found it odd, as a sand mine Enviroworks were involved with was strictly monitored by the DMR.
GA	GA stated that we should start at the beginning. GA stated that there was an individual working for the DMR who was bribed by the mine. GA went on to say that the DMR are now doing announced inspection, but he is trying to get them to do unannounced inspections. GA stated that the DMR is not seeing the issues he is seeing and that he can send photo's of equipment at the mine that shouldn't be there. GA stated that Tja Naledi may only work from 8am to 4pm, but that they are working whenever they want. GA stated

	it doesn't help doing a socio-economic impact and approving plans when things on the ground aren't true.
EB	EB stated if we take everything out of the equation, Enviroworks was contracted to assess the socio-economic impact for the addition of the other minerals for an already existing mine. EB stated that in her view point there is an existing mine with an existing mining right that cannot be taken away at this stage, but that the problem is for Enviroworks to write a report they need to take into account all the impacts as it is part of a larger picture.
GA	GA stated the issue was simple, zoning was incorrect and the access road was not designed to handle the traffic. Gavin went on to list the equipment listed on the current mining plan, and stated that the mine wants to add more machinery. GA stated that the noise is already unbearable with the current allowed machinery. GA stated that the increased noise will negatively affect numerous resorts in the area and three conference venues may be forced to close down.
EB	EB stated that as part of the public participation all bordering land owners should have been notified, notices put up and adverts placed.
GA	GA stated that all adjacent owners should have received hand delivered notifications, but this was not done, and stated that Greenmined can't supply them with proof.
EB	EB stated that as per NEMA principles, the mine should be using their profits for righting damage to the road.
GA	GA stated that Enviroworks' work is important and complicated.
EB	EB stated that what she thinks needs to happen, is that the three consultants need to come together and say that the impacts of the mines need to be assessed as a whole.
GA	GA recapped what had been spoken about, namely flawed participation process and incorrect zoning.
ML	ML confirmed mining areas with Gavin on a map.
EB	EB noted Pont de Vaal and asked if the dust would be issue only affecting it.
GA	Gavin stated that noise would affect Pont de Vaal as well. GA stated that living there one hears nothing at night and that at 6am when the mines start up one hears everything coming from them. GA illustrated a point on the map a substantial distance from the mine where concerts are occasionally held and stated that the concerts can be heard from Vaal Oewer. GA went on to say that there is no crime in the area and is worried that the mines will lead to an increase in crime.
EB	EB asked which was the oldest mine.
GA	GA stated that it was Pure Source, which started in 2015. GA stated that prior mining was illegal.
EB	EB asked which came first, and when the guest houses in the area came about.
GA	GA stated that the guesthouses came about in the 1960's.
EB	EB stated it would then not be a case of guesthouses starting up with knowledge of the sand mines.
GA	GA stated that this person [Goose Bay] had plans for an eco-estate. GA stated that when he bought his house he asked what the land was for and was told it was to be developed into an eco-estate. GA stated that he had the approved environmental impact assessment for an eco-estate. GA explained that he looks over the river from his house and sees various animals. GA stated that the fish eagles are gone.
ML	ML asked GA, if in his opinion he thought there would still be capacity for further guesthouses and lodges in the area.

GA	GA replied that there is a caravan park, where people have started to move out. GA stated that there are resorts and wedding venues all over the area, and that it is a tourist area, not zoned for mining. (Addressed Section 7)
EB	EB asked if the area is included as a mining area in the latest zoning plan.
GA	GA replied that Renee Hartsliet had the Ngwathe Zoning development plan.
ML	ML stated that he had the Ngwathe IDP.
GA	GA stated that in the IDP it says that the area closer to Sasolburg is for sand mining.
EB	EB stated that is why she asked about the IDP as one always evaluated the proposed development in terms of the IDP.
ML	ML asked if GA thought the development of an eco-lodge would lead to competition among other resorts.
GA	GA replied, saying it was not planned to be a resort but an eco-estate, where people would buy plots of land and build house on them. GA stated that it was intended as a residential area, not for tourists. GA went on to say that all they want to do is to protect the area that they love very much, and that the mines came about without them knowing is not right. GA mentioned that he has had to take numerous days of leave in order to meet with consultants and the DMR. GA stated that one of Shango's meetings was planned for a Wednesday. GA stated that in meetings with Stephen Jacobs, they admitted that things were not done correctly and asked that they accept this and carry on anew. GA stated that he strongly disagreed with this and feels Tja Naledi can't simply admit past mistakes and carry on without correcting them.
ML	ML asked about the history of Vaal Oewer and when it came about.
GA	GA wasn't quite sure, but said around the 1960's/1970's. GA went on to state that the river is in the condition it is in because of work Vaal Oewer has done. GA mentioned that there is a weir in the river built by Vaal Oewer. GA stated that the mines are wanting to take water out of a river that they [Vaal Oewer] maintain.
EB	EB states that she thinks the challenge is that one cannot simply say that 'this mine is responsible for this' as there are cumulative effects which need to be looked at and that is actually a strategic environmental impact assessment.
GA	GA stated that the silica sand falls on the grass and animals are not eating the grass. GA said Enviroworks should speak to his wife and find out how hopeless she gets with all the dust coming into their house.
EB	EB confirmed with GA that the mines are also not holding to their working hours.
GA	GA said they were not, and that Craig Richardson would tell us more on this. GA went on to say that the mines hide equipment in the trees when the DMR comes to do inspections. GA stated that they are in contravention of their mining right.
EB	EB stated that the DMR could actually stop them, and asked why they aren't.
GA	GA stated that the DMR are very scared because of what happened in the past regarding mining right approvals and are now very careful as a result of the past. GA explained that they only found out Barrage Sand Mine was operational by chance.
EB	EB stated that she felt happy that Enviroworks now had a good idea of the issue.
Close of Meeting	EB and ML both thanked GA for his time.

Barrage Bulk Sand Mine – Socio-Economic Impact Assessment

Meeting with SPH Kundalila, the contractor responsible for the operation of Barrage Bulk Sand Mine.

Section 102 Mining Right Amendment over Portion 4 of the farm Woodlands 407 (437.8330ha), which falls in the Ngwathe Local Municipality in the Fezile Dabi Magisterial district, Free State Province

Date:	27/11/2018	
Time:	09:30 – 10:30	
Venue:	Barrage Bulk Sand Mine, adjacent to the S171 Road, Ngwathe Local Municipality.	
Attendance		
Elbi Bredenkamp	EB	Enviroworks Environmental Consultants
Michael Leach	ML	Enviroworks Environmental Consultants
Graeme Campbell	GC	SPH Kundalila (Commercial Manger)
Rudi Labuschagne	RL	SPH Kundalila (Mine Manager)
Henk Barnard	HB	SPH Kundalila (Mine Manager)
1.	In the meeting with SPH Kundalila issues raised by I&APs were discussed. A way forward was discussed and recommendations were put forward in order for the mine to reduce their impacts. The key points and recommendations arising from this meeting have been listed below.	
2.	Comment:	
Working hours	Claims have arisen that the mine is not adhering to their working hours, which are 8am to 4pm. SPH Kundalila (SPH) say they have installed a camera system and are going to install a tracker system on vehicles. From this reports can be drawn which will confirm the mines working hours.	
Noise	Noise emitted by reverse-hooters was discussed. SPH said they have installed mufflers which make the reverse-hooters much quieter than ones without. Their Health and Safety officer has confirmed that the reverse-hooters still comply with regulations.	
Dust	The issue of dust blowing off trucks was raised. It was decided that SPH would give all clients a letter, stating that they would need to start using a tarpauling to cover loads.	
Life span of the mine	The life span of the mine was discussed. SPH, claim that the expected life of the mine is 10 years, but this may vary depending on the demand.	
Re-zoning	Re-zoning of the land has been raised as an issue. According to the Applicants lawyer, re-zoning is not required. SPH claim that the municipality are claiming it does. It was recommended that a town planner be consulted in this regard.	
Historical Mine	There is on the farm Portion that has been historically mined. It is currently awaiting closure for the Department of Minerals (DMR). Should closure certificate not be obtained then the rehabilitation of the area will need to form part of the mines current rehabilitation plan.	
Screening	At this stage the SPH just want to screen sand to remove the sand. It was suggest that a test site be used in order to more accurately quantify and predict the potential impacts posed by sand screening. It was suggested that SPH approach the DMR and ask for permission to conduct test on-site screening of sand for a period of one month. The test plant should be monitored for noise and dust. The results of this test can then be used to accurately quantify the impacts posed by the screening of sand.	
Demarcation of mine	I was suggested that a map be created which clearly depicts the areas on the farm that will definitely not be mined and those that will be. The map should depict the direction of planned mining cells as well as the rehabilitation plan for mined areas.	

Vegetation	There are large alien trees growing on the farm, these should be left in place as they aid with dust suppression, at a later stage these trees can be replaced with indigenous vegetation.
Communication	Communication between the mine and the community was raised as an issue. It was recommended that SPH either send out reports on a monthly basis or that a meeting is held once every three months, where SPH discuss issue with the community. It was stated that such meetings need to have an agenda, issue need to be circulated before the meeting and the meeting should take place in a decent and structured manner.
Recommendations	<p>In summary the following recommendations were put forward:</p> <ul style="list-style-type: none"> • In order confirm working hours are being adhered to, SPH should use their camera system and tracking system and compile reports that can be made available to the public. • SPH need to inform clients of the need to use a tarpaulin to cover loads. SPH need to refuse to load sand on clients trucks should they not be in possession of a tarpaulin. • In regards to issues of re-zoning it is recommended that a town-planner be consulted. • Should a closure certificate for the historical mine not ben receives the rehabilitation thereof will need to form part of the current rehabilitation plan. • SPH need to look into conducting test screening of sand in order to accurately quantify the potential impacts of dust and noise. Ideally this would take place on site. If an on-site test will not be possible and alternative should be sought. • A map needs to be created that clearly illustrates areas that will not be mined and areas that will, and SPH need to give there assurance that what is illustrated is final and will not be altered in the future. The direction of mining and rehabilitation also needs to be illustrated. This map will need to be made available to the public. • The large alien trees should be left as they aid in suppression of impacts. At a later stage these can be replaced with indigenous trees. • SPH need to establish a method of regular communication with the surrounding community, where they make available their reports and where issues can be discussed.

Barrage Bulk Sand Mine – Socio-Economic Impact Assessment

Meeting Craig Richardson who resides directly adjacent to Barrage Bulk Sand Mine on the Gauteng side of the Vaal River.

Section 102 Mining Right Amendment over Portion 4 of the farm Woodlands 407 (437.8330ha), which falls in the Ngwathe Local Municipality in the Fezile Dabi Magisterial district, Free State Province

Date:	27/11/2018	
Time:	12:30 – 13:00	
Venue:	Tahiti Estates Farm	
Attendance		
Elbi Bredenkamp	EB	Enviroworks Environmental Consultants
Michael Leach	ML	Enviroworks Environmental Consultants
Craig Richardson	CR	Local resident neighbouring Barrage Buk Sand Mine

An informal meeting was conducted with Craig Richardson on his farm, Tahiti Estates. Craig took us around the farm and showed us how closely Barrage Bulk Sand mine is situated to his house. Key issues coming from discussion with Craig include:

- Craig was unhappy with the Public Participation Process.
- Large areas of un-rehabilitated land on the Pure Source mine can be seen from Craig's farm and create an eye sore.
- Craig's house is directly adjacent to the farm portion on which Barrage Bulk Sand mine is situated and is only separated by the Vaal River. Noise from machinery operating on the mine is heard from Craig's farm which disturbs the tranquil nature of the area and disrupts daily living.
- Craig, along with other stakeholders, are planning a school development on the farm. Negative impacts from the mine will compromise this **(Addressed in Section 7 and Appendix E)**

Barrage Bulk Sand Mine – Socio-Economic Impact Assessment

Meeting with Renee’ Hartsliel and representatives from the Vaal Environmental Justice Alliance and Ngwathe Municipality.

Section 102 Mining Right Amendment over Portion 4 of the farm Woodlands 407 (437.8330ha), which falls in the Ngwathe Local Municipality in the Fezile Dabi Magisterial district, Free State Province

Date:	27/11/2018	
Time:	13:05 – 14:20	
Venue:	Local resort.	
Attendance		
Elbi Bredenkamp	EB	Enviroworks Environmental Consultants
Michael Leach	ML	Enviroworks Environmental Consultants
Ephraime Mosibi	EM	Ngwathe Local Municipality
Reenee’ Hartsliel	RH	The Savannah Africa Vredefort Dome Tourism Association
Mduduzi Tshabalala	TM	Vaal Environmental Justice Alliance
Thabang Lenka	LT	Vaal Environmental Justice Alliance
Samson Mokoena	SM	Vaal Environmental Justice Alliance
1.	Welcome/Introduction Enviroworks have been appointed to conduct a Socio-Economic amendment for the proposed Section 102 Mining Right Amendment over portion 4 of the farm Woodlands 407. This meeting was conducted as part of three meetings with I&AP’s who wished to meet with Enviroworks in order discuss socio-economic issues related to the proposed amendment.	
2.	Comment:	
Elbi Bredenkamp (EB)	EB said they [Enviroworks] have had some interesting chats and met with Gavin Abound and received his objection that he sent to DMR. We will still work through that. They have also received all the comments from Greenmined. Asked if all present had met them [Greenmined]?	
Renee Hartsliel (RH)	RH said she has but that they [EM, TM, LT and SM] had not.	
Samson Mokoena (SM)	No. Have heard about the proposal from discussion with RH and Mariette Liefferink.	
RH	Asked if Enviroworks knows Mariette?	
EB	Suggested we first introduce ourselves.	
SM	SM introduced himself. Works as a coordinator for the environmental group, Vaal Environmental Justice Alliance (VEJA). SM mentioned some of the groups that they partner with and that they work around the Vaal river system – work from the Vaal Dam up to Klerksdorp. VEJA are also part of the Water Catchment Forum.	
Mduduzi Tshabalala (MT)	TS introduced himself. TS is working with the water quality campaign VEJA, which forms part of the South African Water Caucus.	
Thabang Lenka (TL)	TL introduced himself.	
Ephraime Mosibi (EM)	EM introduced himself. TM is part of the Water Caucus, the Ngwathe Local Municipality and also part of SevenGardens.	

RH	RH introduced herself. RH and Bob Hartsliel bought a farm in 1994, 5km west of the mine, on the Vaal River, which RH has turned into a private nature reserve. RH is the chairperson of the Vredefort Dome Tourism Association.
EB	EB introduced herself and Enviroworks. EB worked for the provincial Department of Environmental Affairs for about seven years. EB worked for the Department of Minerals and Energy for one year and worked a lot with sand mines during that year. EB has been running her own business [Enviroworks] for the past 16 years. EB explained that Enviroworks had been appointed by Greenmined to do a Socio-Economic Impact due to the complaints received, largely regarding to the cumulative impacts.
Michael Leach (ML)	ML introduced himself. ML works for Enviroworks, particularly on Socio-Economic assessments.
RH	RH asked how one learns how to do social impact studies.
EB	EB explained that we are part of IAP2, an international association which conducts training in public participation. EB went on to explain that social assessments often deal with a large amount of 'grey' areas as they deal with peoples feeling and perceptions. EB explained how an activity may be well below legal thresholds but still poses a nuisance impact. Such impacts cannot be addressed according to legal limits, but can be addressed on a social level.
SM	SM said that his question is with regards to air quality, an issue they have been arguing with the DMR. SM mentioned the Vaal Triangle (VT), which was declared a highest priority area and wondered if there had ever been any air quality impacts done on the many sand mines.
ML	ML said that the three mines [Barrage, Pure Source, and Sweet Sensations] fall just outside the VT.
SM	SM said they are currently doing a source appointment study, looking at how sources of air pollution outside the VT may be adding to the pollution within the VT. SM asked how does one deal with these sources outside of the VT, and asked whether these issues [pollution affecting areas away from the source] are being taken into consideration within the Socio-Economic study?
EB	EB said it will be considered, though Enviroworks is only looking at the one mine and the amendment of the mining right. EB asked to discuss air quality for the moment. EB mentions that air quality is a local municipality's responsibility. Enviroworks has an air quality specialist who doesn't just do monitoring but modelling of air quality impacts, which she feels is the proactive approach. EB stated that the mines are just required by the EMP to do monitoring. EB has had a look at the monitoring reports for the mine [Barrage] and they are well below limits.
SM	SM stated that it is the District Municipalities responsibility to do Air Quality Monitoring, and that he has been arguing with the District air quality officer regarding the sand mining in the Free State. SM stated that they have been trying to find out what the cumulative impact of the mines in the area is, and it will be important to look at the cumulative impact of the three adjacent mines. (Addressed in 'Cumulative Impacts', Section 7)
EB	EB stated that Enviroworks has just been reviewing the air quality plans for the West Coast District Municipality, and asked where were such plans are for the area concerned.
SM	SB stated that they form part of National Air Quality. For him one of the big issues is the cumulative impacts.
EB	Point to minute: The cumulative impact of the dust needs to be collated, see where the sources are and the affected areas. (Addressed in 'Recommendations' Section 7)
RH	RH stated that one of her concerns is what the health impacts caused by the silica in the air are. RH then asked how many jobs are being created by Tja Naledi.

ML	ML answered that at the moment the mine provides four jobs and with the new amendment the jobs provided would be increased to 10 (ie. 6 new jobs).
RH	RH stated that the potential for local employment is then very small, and those employed would unlikely come from the Ngwathe area. RH stated that the Social and Labour Plan (SLP) was not work-shopped with the community or approved by the community. RH said that it was crucial for the community to be involved in the forming of the SLP before it is submitted to DMR
EB	EB agreed.
RH, MT, EM	Mines (unsure who exactly) have been creating expectations that there is going to be a lot of work available. When in reality they will only create a few jobs.
EM	EM asked, apart from the owners of the mine, who is going to benefit from it?
SM	SM requested the Mining Right, EMP, financial provision for rehabilitation of the site, and the Social and Labour Plan.
EB	Explained a bit about their rehabilitation process.
RH	RH stated that the previous application [for the mining right] contained many instances of the words “concurrent rehabilitation” whereas it occurs fewer times within the current application [mining right amendment]. RH felt that the mine are downscaling their commitment to rehabilitate. RH stated that part of the proceeds from the mine needs to go towards the rehabilitation of the road. RH stated that the farmers in the area use the road intensively, and the road was not designed for heavy trucks using the road due to the mines.
RH	RH was confused with regards to all the different names, Tja Naledi and Barrage Bulk Sand. RH wanted to know ‘who is who’, who owns the mine etc.
EM	EM stated that another thing he felt they needed access to was the water licence. EM asked if the impact on the river is being addressed in the BA report. (Addressed in Section 7)
ML	ML stated that the mine obtains water from boreholes on the farm and will not directly impact on the river.
RH, EM	One of the concerns is in regard to alluvial diamonds, and that the area where ‘diamonds’ will be mined was not mapped along with the other planned mining areas. They are concerned that the mine will end up mining for diamonds within the river.
ML	ML stated that area could be part of a larger historic floodplain, hence ‘alluvial’ diamonds would not necessarily only be found in the river.
EB	EB stated that the areas where they are going to mine and not going mine needs to be clearly indicated in their mining plan and signed off. The mining method for diamonds also needs to be clearly indicated.
EM	EM mentioned the “Contanial Declaration of Diamonds” – whereby diamonds can be sold without a licence for a day.
EM	EM noted the tremors and sinkholes being caused by mines.
EB	EB noted this. EB stated that we will copy Greenmined in our all correspondence.
RH	RH raised the issue of zoning and stated that one cannot mine in a tourism and agriculture area.

EB	<p>EB stated that it is not clear within planning documentation (IDP, SDF etc.) as to the zoning of the area. EB stated that historic mining rights are involved and that the uncertainty comes in with regard to the start date of previous mining activities.</p> <p>EB noted that while this may not be able to be sorted out in the report, it will be brought to attention within the report.</p> <p>EB asked what local communities needed to be consulted in the assessment process.</p>
RH, SM	<p>Vaal Oewer, Barrage informal settlement, informal settlement (adjacent to Vaal Oewer), Simohloli township</p>
EB	<p>EB stated that we [Enviroworks] were only appointed to assess the specific mine. EB said that there needs to be an overarching strategic assessment of all three mines and is hoping that the public can push for an assessment such as this, in order to take into account the cumulative impact.</p>
SM	<p>SM stated that the cultural and heritage impacts needs to be taken into account and addressed, as the mines can pose a threat to tourism by impacting cultural and heritage sites such as the Vredefort Dome. (Addressed in Section 6 and Section 7)</p>
Close of Meeting	

APPENDIX D: LAWYERS LETTER REGARDING ZONING



WEAVIND & WEAVIND
ATTORNEYS, NOTARIES AND CONVEYANCERS
EST. 1995

<p>CONTACT</p> <p>(012) 346 3098 www.weavind.co.za</p> <p>Dooex 8 Pretoria</p>	<p>louisvb@weavind.co.za PO Box 34 Pretoria, 0001</p>	<p>ADDRESS</p> <p>Block E, Glenfield Office Park, 361 Oberon Street, Faerie Glen, Pretoria, 0091</p>
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YOUR REF: #	OUR REF: Louis van Bergen/J40001	DATE: 17 May 2018
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Greenmined Environmental

yolandie.c@greenmined.co.za

Dear Sir/ Madam

PORTION 4 OF THE FARM WOODLANDS 407 NGWATHE LOCAL MUNICIPALITY

1. We act on behalf of Tja Naledi Beafase Investment Holdings.
2. Mining activities are currently being conducted on the abovementioned land in accordance with our client's mining right issued under FS 30/5/1/1/2/10020.
3. It is our instruction the community members situate in close proximity to the property has recently voiced their concern insofar as they are of the view that the property has to be re-zoned for mining purposes.
4. Our client is practising well within the confines of the applicable legislation and it is accordingly unnecessary for the owners to rezone the property.

<p>COMPANY PARTICULARS: Weavind & Weavind Inc. Reg. No. 1976/002814/21 VAT NO. 4900106073</p> <p>BEE CERTIFICATION: Level 2 Contributor: BBBEE Sworn affidavit Practice number: F186</p>	<p>DIRECTORS: E R Johnson (Chairman) J E le Roux J T J van Rensburg H van Rooy S van der Merwe N J Viviers B C M Ngcobo C R Dorniehl (Managing) E J van Hoerden A L Kally</p>	<p>ASSOCIATES: Y Viviers E van der Merwe M T Mathulwe D J Cloete T K Lepinks L G van Biljon S Oberholzer M J Lys D de Bruyn J C van Zyl L van Bergen</p>	<p>BUSINESS MANAGER J J Erasmus</p>
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5. It is our instruction that silica sand mining has been conducted on the property since the 1970's and was accordingly not subject to a land use scheme at its commencement.
6. You will appreciate that the Ngwathe Local Municipality has yet to adopt a land use scheme as contemplated in Section 24(1) of The Spatial Planning and Land Use Management Act of 2013 ("SPLUMA") nor does its current Land Use Scheme make provision for the zoning of farmland.
7. Consequently the property in question falls squarely within the ambit of Section 26(3) of SPLUMA which is quoted hereunder for your ease of reference:

"Where no town planning or land use scheme applies to a piece of land before a land use scheme is approved in terms of this Act, such land may be used only for the purposes listed in Schedule 2 of this Act and for which such land was lawfully used or could lawfully have been used immediately prior to the commencement of the Act."

8. Schedule 2 of the Act in turn includes "mining purposes".
9. In the premises the mining activities conducted on the property in question is not in contravention of any Law and we reiterate that the owners are under no obligation to rezone the property as alleged by the members of the community.
10. Our client is mindful of the value the community adds to its operations and it is accordingly committed to supporting them through the creation of jobs and infrastructure.



11. In order to maintain the longstanding relationship between our client and the community it insists that any grievance must be dealt with on the merits and is committed to settle same amicably.
12. Our client has great commercial interest in the aforesaid property and will oppose any application threatening its activities, we do however believe that this will not be necessary.
13. Please be advised accordingly.

Yours faithfully,

Weavind & Weavind
Louis van Bergen



APPENDIX E: ECONOMIC IMPACT ASSESSMENT REPORT

APPENDIX F: DETAILS OF THE SPECIALISTS



Suite 204, Hibernian Towers, Beach Road, Strand, 7140 or
 Postal: Suite 338, Private Bag X15, Somerset West, 7129, RSA
 Mobile +27 (0)82 562 4134 Landline +27 (0)21 853 0682 Fax 086 601 7507
 E-mail: elbi@enviroworks.co.za Website: www.enviroworks.co.za



CURRICULUM VITAE GERBRECHT ELIZABETH (ELBI) BREDEKAMP

Founder and CEO of Enviroworks Environmental Management Company since 2002 (www.enviroworks.co.za);
 Founder and CEO of EnviroCare (Non- Profit Organisation); Certified Carbon Verifier and Member of Carbon Protocol
 of South Africa, Certified ISO 14064 GHG Verifier; Certified Professional Scientist (Pr.Sci.Nat. 400328/11) (SACNASP);
 Member of the International Association for Impact Assessors (IAIAsa) (Membership 3893); Alien Invasive Species
 Consultant (SAGIC Training AIS 1018)

PLACE OF BIRTH: Bloemfontein, South Africa
DATE OF BIRTH: 13 February 1964, Age 53
SOUTH AFRICAN ID NO: 640213 0036 082

QUALIFICATIONS

- 2012-2013:** Greenhouse Gas Verification Training of the JCM (Joint Credit Mechanism LRQA Japan
 Proposed by the Japanese Government)
 ISO 14054, ISO 14064, JCM (BOCM) Manuals,
 LRQA GHG Verification Procedures.
- 2012** Systems & Greenhouse Gases ((GHG) Technical Assessor Course, SANAS (South African National
 Accreditation System- ISO 14065) (With distinction)
- 2010** ISO 14064-1/2/3/4 - Carbon Action (UK)
- Measuring your Organisation's Carbon Footprint: ISO 14064-1: Essentials – GHG Inventories
 (50018728/50052908)
 - Reducing your Organizational Environmental Impact: ISO 14064-2 :Essentials – GHG Projects
 (50018741-50052911)
 - Carbon Emission Reduction Expert Course :ISO 14064-2 Expert – GHG Projects
 (50018731/50052909)
 - Greenhouse Gas Verification: Using ISO 14064 (50029594-50052913)
 Courses successfully completed in England & Ireland on Carbon Footprint measuring and
 verification
- 2000 – 2002** Principles of EIA Review Course US EPA, in Pretoria, RSA
 Conflict Management Durban, RSA
 Environmental Law (with distinction) Aldo Leopoldt Institute, Pretoria,
 RSA

1997 – 1999	Mineral Laws Administration and Environmental Management Principles of the Rehabilitation of Disturbed Areas Environmental Impact Assessment Environmental Management Systems (SABS/ISO 14001) Environmental Policy and Management in Mining and Minerals The Measurement of Biodiversity	University of Pretoria, RSA University of the North-West, RSA University of the North-West, RSA University of the North-West, RSA University of Johannesburg, RSA University of the Free State, RSA
1992 - 1994	M.Sc (Botany) – University of the Free State (Cum Laude), Republic of South Africa	
1982- 1986	B.Sc & B.Sc (Hons) - University of the Free State- majoring Botany, Zoology, Mathematics	

WORK EXPERIENCE

- 2002 – Today** **Founder; CEO and International Greenhouse Gas Verifier at Enviroworks Consultancy, RSA**
- Extensive experience in the conducting of Environmental Impact Assessments, Risk Analysis, Auditing, Monitoring and Compiling of Environmental Management Plans. A familiarity with Government departmental mechanisms and functioning, aided towards the success of these projects.
 - An ongoing involvement with the International Association of Impact Assessment (IAIASa), led to key involvement in the holding of workshops between the Department of Environmental Affairs and Tourism, Developers and Consultants, to discuss logistics, capacity constraints, and communication channels to enhance the assessment process. Contribution was largely from a consultant standpoint.
 - Under the direction of Elbi, Enviroworks expanded to provide numerous services in the fields of soil-, water-, vegetation- and waste management.
 - **Notable Public Sector Projects** included the assessment for the construction of a Weir structure at Oranjedraai; Rehabilitation work for Nuwejaarspruit; the assessment for a Vulture Hide at Golden Gate National Park and development of eco-tourism facilities at the Golden Gate National Park Mountain Retreat; assessment as to the expansion of tourism facilities at Basotho Cultural Village; the review of 371 Section 24G applications, all on behalf of the Government Department of Environmental Affairs. The aforementioned projects were all in the RSA.
 - **Notable Private Sector** Projects comprise the completion of Environmental Impact Assessments (EIA's) and Water Use Licence (WUL) applications for the Neotel Long-Haul Fibre Optic network between Johannesburg and Cape Town, connecting the SFACOM Cable to the South African continent; more than 300 EIA's of communication infrastructure for MTN, Cell C and Vodacom in the Free State- and Western Cape Provinces; various EIA's for the construction of Eskom Powerlines and Substations Nationally; Management and Business plans for the management and breeding of large predators in captivity, in the Free State Province; EIA's for the construction of river gauging weirs Nationally; EIA's for the construction of Residential developments Nationally; as well as Mining Environmental Management Plans, Archaeological Assessments, Eco-Tourism EIA's, Risk Assessments, Agricultural Upgrading and development, Waste handling and National Environmental Management Act 24G Applications. Notable Public Consultation took place during each project. Social Impact Assessments were done for the various projects.
 - **Expansion into the Green House Gas Management Sector** (Carbon Footprint)
In 2010, Elbi travelled to London and Cork to obtain training and certification with the ISO 14064 (1-4) standards on Greenhouse Gas Management. As a consultancy partner, to the Carbon Disclosure Project (CDP), member and Certified Verifier of the Carbon Protocol of South Africa (CPSA), Elbi developed an impressive spectrum of services, ranging from carbon disclosure and verification to carbon footprinting, the provision of awareness workshops and emission

reduction projects. She established a network of International Industry Specialists (notably Chemical and Industrial Engineers; as well, as Carbon and Energy Experts) to ensure that service excellence and global standards are maintained. Furthermore, she was requested by the Japanese Government to do external Carbon Audit Verification for a Carbon Reduction Project at Goldfield Driefontein Main Fan Efficiency Project at Carletonville, in South Africa.

- **Alien Invasive Identification (AIS), development of AIS Management Control Plans as well as Physical Control/Eradication Team Management**

As a botanist, Elbi was always interested in Alien Invasive Species (AIS) and their negative effect on the indigenous vegetation. Relative recent Biodiversity Legislation (NEMBA) on the Reporting and Management of AIS in South Africa, formed the basis of her experience in this field. She attended training courses presented by the South African Green Industry Council (SAGIC) and gained experience via projects, specifically based on the NEMBA legislation.

Projects in the Western Cape included LafargeHolcim Western Cape (Peak-, Saldanha- and Tygerberg sites); and in the Southern Cape (Knysna- and George sites).

She presented various knowledge transfer talks to Estate Agents and did a presentation at a conference, held by Schnetler's Conveyance Attorneys, to inform the attorneys and the estate agents of the necessity and the requirements of AIS Management. She was also pivotal in AIS development and management in Bloemfontein, Free State, for the LafargeHolcim Cement Industry; and presented various talks at the National Estate Agents' Annual Conferences to this effect.

She also managed teams that did Physical Eradication Projects for the LafargeHolcim Company. Various Estate Agents are now on Enviroworks' list to assist them with AIS Declaration Certificates. As part of ECOCERT Open Spaces Certification, she also managed and assisted Riverside Estate Guesthouse (a first for South Africa in the Tourism Industry Open Spaces Certification) to compile their Biodiversity Report and Alien Invasive Management Report. She gave input throughout the lifespan of this project to date. She presented and was requested to draft Terms of Reference, to the South African National Roads Agency (SANRAL), a Plan of Action to assist them in their effort to report and manage their AIS responsibility. She has been in the environmental field for 21 years, involved with Environmental Impact Assessments, where Alien Invasive Identification and Control formed an integral part of each study.

Thus, her abilities in this field *inter alia* include:

- Ground truthing and Assessing of Invasive Species on site;
- Listing and Reporting on the Invasive Species;
- Develop Management- and Control Plans;
- Execution of Control Plans.

- **International Environmental Experience**

- International Audit / Carbon Verification for the Japan, Ministry of Environment on Carletonville Mine Energy Efficiency project – South Africa: JCM Pilot Verification Audit for LRQA (Lloyd's Register Quality Assurance Limited, Yokohama, Japan, November 2012- February 2013 (as mentioned above).

- International Environmental Audit (5 year period) for General Motors South Africa (GMSA) in conjunction with SHE Management Company.

- The World Bank granted funds for infrastructure upgrade the Gaza Province, Mozambique, Africa. Zhongmei Ltd, a Chinese owned company, was awarded the project for the Design, Rehabilitation/Improvement, and Routine Maintenance Works of ICB No: 22/Ge-Anc/313/2015.

Elbi's current responsibilities in this project, entails:

- Ensuring compliance with both Mozambique Environmental Legislation
- As well as following and executing World Bank Procedures in terms of Environmental Policy and Standards
- Developing the Environmental and Social Management Framework.
- Developing Social and Environmental Policies and Plans
- Writing the Capacity Building and Training Material Manuals
- Community liaison and Health, Safety and Social Impact Assessment Studies for the affected communities/population.

1997 – 2002 Department of Tourism, Environment and Economic Affairs, Free State (DTEEA-FS), South Africa: Environmental Specialist

- Worked as an Environmental Specialist in the Environmental Impact Assessment Division.
- Developed Departmental Administrative Processes & Organizational Structures
- Interprovincial Department Liaison with all other South African Provinces
- Streamlining of Report Review Processes
- Through ongoing dealings with Environmental Legislation, an intimate familiarization with the National Environment Management Act (Act 107 of 1998 "NEMA") and NEMA EIA Regulations Government Notices 385, 386, 387 promulgated in terms of chapter 5 of NEMA, 1998 was achieved. Elbi formed part of the Task Team to re-write the NEMA Regulations at National Level.

1996 Department of Minerals and Energy, Free State, RSA: Principal Environmental Officer

- Served as a listed Environmental Specialist with the Department of Minerals and Energy gaining an extensive knowledge of mining impacts and attributing management mechanisms.
- Expertise were developed in rehabilitation, monitoring, reviewing and approval of Environmental Management Programme Reports (EMPR's), field inspections, evaluating Closure Plans for mines, as well as slime dams' inspections and associated impact evaluation.
- Legal implications in the event of non-compliance.
- Project involvement was achieved through Public Participation Processes, Consultation Phases, Planning Phases to incorporate Environmental Aspects, and the evaluation of the Environmental Impact Assessments, resulting in the compilation of Conditions of Approval by evaluating the Environmental Management Plans.

PROFESSIONAL ASSOCIATIONS

Elbi is associated with the following organizations:

- Registered Scientist with the South African Council for National Scientific Professions (SACNASP) (Pr.Sci.Nat. 400328/11)
- International Association of Impact Assessors (IAIASa) (Member No 3893)
- International accredited Carbon Verifier (auditor)
- SANAS accredited System & Green House Gas Technical Assessor
- Member and Certified Carbon Verifier with the Carbon Protocol of South Africa
- Accredited Consultancy Partner with the Carbon Disclosure Project- 2012
- Preferred supplier with the Financial Mail Green Business Guide-2012
- International Association for Impact Assessment South Africa (IAIASa) – Branch Chair from 2011 - 2013

SPECIAL AWARDS

- Prof. E M van Zinderen Bakker - Prize (Best M.Sc. - Dissertation) & Honours in academics
- Dean's Medal (Best Magister Student)
- S2A3 - GENCOR - Bronze Medal (Best M.Sc. Thesis in Dept. Botany and Genetics)
- Africa Growth Awards Overall Winner Services Sector- 2012
- SEDA Business Competition Overall Provincial Winner- 2012

STRONG POINTS

- Natural Entrepreneurial Skills since early childhood (e.g. founding Enviroworks and EnviroCare Companies)
- Well-developed Strategic Management skills

- Research/ Analytical Skills developed during my study years as Environmental Scientist specializing in Botany (Master of Science)
- Integral Social Responsibility Skills were developed during my career as Environmentalist and this resulted in my founding and establishing of EnviroCare, a Non- Profit Organisation arm of Enviroworks
- Excellent understanding and knowledge of the Broad Environment
- Passionate about the Environment in its full context; to the effect that the Company I founded (Enviroworks)'s credo is: "Today's Impact is Tomorrow's legacy"
- Good understanding of Development Issues in both developing and developed countries, justifying the existence of Enviroworks (my company)
- Strong Visionary Leadership developed during my career in the Private Sector, founding Enviroworks and taking it forward to a National Operating Company.
- Excellent Supervisory Skills, managing a multi-disciplinary Professional/ Specialist Team
- Well- developed natural Delegation Skills as needed in a National Company with six (6) branches countrywide
- Excellent Mentorship Skills were developed during my 15 year period in building Enviroworks and acting as incubator for Internships. Enviroworks is requested by various Institutions to assist with Mentorship of Internships. Recently, we were selected by the Youth Environmental Services (YES) Programme, an environmentally-focused youth development and training programme funded by the Department of Environmental Affairs (DEA) to host 2 Interns yearly.
- Project Managerial Skills are well- developed in dealing with 15 years of projects, as CEO of Enviroworks
- Good Organizational Skills were developed during my 2 year period as IAIAsa Chair Person, organising and presenting the National and Regional Annual Conferences
- Dedicated Team Worker, Inspiring co-workers through leading by example
- Very good knowledge of Government Structures and understanding of Institutional Mandates developed whilst working in the South African Government sector for 8 years
- Excellent Communication Skills on different levels and ability to transfer knowledge as developed during my career as Mathematics and Science Teacher at Senior School level and lecturer at the University of the Free State, RSA. Latter was enhanced during my Environmental Career, communicating from the highest level in Government to grass-root level in the community *at large*
- Financial Resource Mobilization skills are day to day skills executed in running a profitable Business and overseeing Project Execution
- Language proficiency is excellent, both oral and written, in English, Afrikaans (mother tongue) and Southern Sotho (native language)

REFERENCES

Name	Antionet van Wyk
Position	SANParks General Manager: Infrastructure and Special Projects
Tel	Ph (+27) 12 – 426 5126 Fax (+27)12 – 343 4666 Cell: (+27)82 905 4644 Website: www.sanparks.org antionet.vanwyk@sanparks.org
Name	Mr Patrick Anderson
Position	CEO Pr.PM (Reg. No. 7469) NQF9 PM (Masters) NQF5 Civil Eng. Panda Consulting (PTY) Ltd
Tel	Ph: (+27) (0)43 748 1557

Fax: (+27) (0)43 748 1557
Cell: (+27) (0) 82 3460 980

Email

patrick@pandaconsulting.sa.com



Suite 1064, Private Bag X2, Century City, 7446
 Block B2, Edison Square, c/o Century Avenue and Edison Way, Century City
 Cell | 082 438 9744 | Tel 021 527 7084 | Fax 086 601 7507
 michael@enviroworks.co.za | www.enviroworks.co.za



Michael Leach

RELEVANT QUALIFICATIONS

Bachelor of Science in Conservation Ecology: University of Stellenbosch (2015)

WORK EXPERIENCE

- April 2017 – November 2017:** Freelance Environmental Control Officer for Peninsula Permits
- June 2017 – August 2017:** Field Assistant
- November 2017 – February 2018:** Field Assistant (Vegetation Mapping)
- May 2018 – Present:** Junior Environmental Consultant at Enviroworks

BASIC ASSESSMENT EXPERIENCE

- Proposed Development of a Telecommunication Base Station and Associated Infrastructure on Portion 8 of The Farm Delta No. 1003, Groot Drakenstein, Western Cape Province (Coast to Coast).
- Proposed Development of New Sports Fields For Curro Holdings, on Portion 110 of The Farm Olifantsvlei No. 327, Johannesburg South, Gauteng Province (Curro Holdings).
- The Proposed Development of a Thirty Five Metre (35M) Telecommunication Base Station and Associated Infrastructure on Remaining Extent of Portion 13 of The Farm Van Aries Kraal No. 455, Grabouw, Western Cape Province (Coast to Coast).

ENVIRONMENTAL CONTROL OFFICER (ECO)

- Various photographic and film shoots at locations in and around Cape Town (Peninsula Permits).
- Periodic Maintenance of National Route 2 Section 4 between Swellendam and Riviersonderend, Western Cape Province (SANRAL).

OTHER EXPERIENCE

- Plant Species Identification Report For The Widening of a The R60 Road Between Worcester And Ashton, Western Cape Province (BVI).
- CDM Degassing Plant – Calibration and Data Recording
- Bird monitoring and identification on proposed windfarms – Arcus Consultancy Services
- Youth work – Youth leader at Pinelands Baptist Church – 2012 – Present

PROFESSIONAL ASSOCIATIONS

- IAIAsa, 6051
- IAP2

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CONTACT DETAILS

Name of Company	EOH Coastal & Environmental Services
Designation	Principal Consultant
Profession	Socio-Economic Specialist Consultant
Years with firm	6 years full-time and 8 years as external sub-consultant
E-mail	m.talbot@cesnet.co.za
Office number	+27 (0)21 045 0900
Mobile number	+27 (0)72 386 0537
Nationality	South African / British / Irish
Professional body	Member of the South African Monitoring & Evaluation Association
Key areas of expertise	<ul style="list-style-type: none"> ➤ Social Impact Assessment ➤ Economic Impact Assessment ➤ Socio-Economic Research ➤ Stakeholder Engagement ➤ Resettlement Planning ➤ International E&S Safeguards and Standards (IFC, AfDB, EIB, RSB etc) ➤ Monitoring & Evaluation ➤ Environmental Impact Assessment ➤ Strategic Environmental Assessment ➤ Environmental Management Training

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PROFILE

Maura is a skilled and experienced public facilitator and socio-economic and environmental consultant, researcher, and academic with over twenty years of experience working in South Africa and other African Countries. She has a Master of Arts Degree in Human Geography with distinction, and two BA Honours degrees, one in Human Geography and another in Economics. Her research has had a strong policy and applied character and covered the fields of land reform, history of land use change in rural areas, rural development, community based natural resources management, integrated conservation and development projects, parks and neighbours projects, afforestation and fisheries development projects, and environmental, climate change and water/catchment management policy. As a senior socio-economic and environmental consultant for Coastal and Environmental Services (CES) and other clients for 20 years she worked on a number of assessment projects, including Strategic Environmental Assessments (SEAs) related to mining developments, conservation, forestry and municipal spatial planning; Environmental and Social Impact Assessments (EIAs) for roads, mines, biofuel estates, golf courses, conservation, tourism, and residential developments), facilitated stakeholder engagement processes for various EIA and SEA projects; qualitative and quantitative socio-economic surveys and monitoring; Social Impact Assessments (SIA), Resettlement Action Plans (as per IFC guidelines) and Economic Impact Assessments. These were for projects in South Africa, Madagascar, Mozambique, Malawi, Sierra Leone and Egypt. More recently, Maura undertook policy related research around incentive schemes for the restoration of catchment areas in the Eastern Cape Province of SA. This work explored carbon trading and water policies and the potential to use market mechanisms to facilitate social change. She also worked for five years as a lecturer in Environmental Science at Rhodes University and taught courses in Environmental Management, Socio-Ecological System Dynamics and Global Environmental Issues (including climate change science and policies). All of this work has allowed her to develop considerable skills in research, data analysis, writing, project design and proposal writing, project management, project evaluation, fund raising and stakeholder engagement. Developing her skills in compassionate communication and facilitating collaboration has become a particular interest for her in recent years.

Maura Talbot
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**ACADEMIC
QUALIFICATIONS**

Rhodes University, Grahamstown, South Africa

- 2007 – BA Honours Degree in Economics
- 1992 – Master of Arts Degree (Human Geography) with Distinction.
Thesis: *A geographical study of agricultural change since the 1930's in Shixini Location, Willowvale/Gatyana District, Transkei.*
- 1989 – BA Honours Degree in Geography
- 1987 – Completed Geography 111 Major
- 1986 – BA Degree with majors in Economics and Sociology

**RELEVANT
SOCIO-
ECONOMIC
PROJECT
EXPERIENCE**

Resettlement Planning

- Corridor Sands Limited (Mozambique): Social Monitoring of Resettlement Process
- Kenmare Moma Powerline Project: (Mozambique)
- Coleske Resettlement Action Plan, Baviaanskloof Nature Reserve and World Heritage Site, EC, SA,
- Resettlement Action Plan for the proposed La Repose Tourist Resort, Alexandria, Eastern Cape, South Africa.
- MCA Powerline Resettlement Action Plan Implementation - Completion Audit.

Social Baseline Assessments and Surveys

- Coleske Area Study (Baviaanskloof Nature Reserve): Study of Rights and Entitlements, Socio-economic Survey and Survey of Natural Resource Use amongst former farmworkers living in the Nature Reserve.
- EFA 2005-6: Lake Malawi Artisanal Fisheries Development Project: Baseline Study of the Fisheries and Forestry sectors.
- EFA 2003 – Socio-Economic Survey for the development of the Malawian Aquaculture Master Plan. Project funded by JICA (the Japanese Overseas Development Organisation).
- EFA 2003 - Advisory consultant on the Environmental and Social Review of the Les Gambas De L'Ankarana (Ltd.) Prawn Farm at Ambilobe, Madagascar
- DIFID/CSIR Private Sector/ Community Forestry Partnerships Research Project.
- Researcher & Project Manager - Addo Elephant National Park Pilots Research Project – investigating mutually beneficial business partnership options with neighbouring poor communities.

Social Impact Assessments (SIA)

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- CES 2000 - Social Specialist for Kentani Mining Strategic Environmental Assessment (SEA) – Wildcoast, EC Province, SA.
- SIA for the Wildcoast Toll Highway, EC, SA.
- SIA for the La Repose Tourist Resort, Alexandria, Eastern Cape, South Africa.
- SIA for the Dutch Jatropha Consortium's proposed Jatropha Estate and Biofuel Production Facilities, Buzi District, Mozambique.
- SIA for the Grown Energy Biofuel Project in the Zambezi Province, Mozambique.
- SIA for the Peregrin Dunes Golf Estate, Kidds Beach.
- SIA for the proposed redevelopment of an informal settlements in the wetlands adjacent to Masiphumelele Settlement, Cape Town.
- Social & Economic Impact Assessment for the ARME Phosphate Mine, Saldanha Bay, SA.

Stakeholder Engagement & Collaboration Facilitation

- Knysna Toll Highway ESIA Public Participation Process
- ESIA Public Participation Process for the proposed ADDAX Biofuel Development in Sierra Leone.
- Great Fish River Reserve Parks and Neighbours Project - facilitated collaboration and cooperation between the Park and its poor rural neighbours in the former Ciskei African Reserve/Homeland.

Economic Impact Assessments

- El Burulus Heavy Mineral Sands Mine, Egypt.
- Addendum EIA for the Corridor Sands Mining Project, Mozambique.
- La Repose Tourist Resort, Alexandria, Eastern Cape, South Africa.
- Economic Impact Assessment for the Kalagadi Manganese Smelter in the Coega IDZ, Port Elizabeth, South Africa.
- Economic Impact Assessment for the Exaro Smelter in the Coega IDZ, Port Elizabeth, South Africa.
- Socio-Economic Impact Assessment for the Greater Addo Elephant National Park, Eastern Cape, South Africa. Commissioned by SANParks and the World Bank.
- Social & Economic Impact Assessment for the ARME Phosphate Mine, Saldanha Bay, SA.

Monitoring and Evaluation.

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- Enviro Fish Africa (EFA) 2002 – Evaluation of the Border Zone Development Project's (BZDP) Aquaculture Project (1997-2002), Malawi.
- CES 2001 - SEA and Socio-economic/Institutional Assessment for the Greater Addo Elephant National Park Programme. Developing a Monitoring Programme.
- Eve Brand Pty Ltd – Langkloof – Mid-term Evaluation of their Job's Fund Sanddrift Farm Development & Empowerment Project, Joubertina, Eastern Cape.

Policy

- Development of Guidelines for Environmental and Social Impact Assessments (ESIA) for the Round Table on Sustainable Biofuels. An initiative of the École Polytechnique Fédérale De Lausanne (EPFL) Energy Centre, Switzerland. ECOSAS – Bioenergy Policy – Sustainable Forestry Certification Policy Tool Development
- CSIR Natural Resources Unit – Sustainable Bioenergy Policy (SA)
- GIZ – Lead Research Consultant on the potential to develop Payments for Ecosystem Services (PES) schemes in South Africa.

Research

- Institution opportunities and constraints to the development of ecosystem services markets in South Africa, more commonly known as Payments/Rewards for Ecosystem Services (PES) and Markets for Ecosystem Services (MES). These are essentially incentive schemes to encourage a shift towards more sustainable uses of land and water by land holders and greater private sector investment in restoration activities.
- CSIR Natural Resources Unit – Sustainable Bioenergy Policy (SA)
- ECOSAS – Bioenergy Policy – Sustainable Forestry Certification Policy Tool Development
- Addo Elephant National Park Pilots Research Project – investigating mutually beneficial business partnership options with neighbouring poor communities.
- DIFID/CSIR Private Sector/ Community Forestry Partnerships Research Project.
- Socio-Economic Survey for the development of the Malawian Aquaculture Master Plan. Project funded by JICA (the Japanese Overseas Development Organisation).
- Lake Malawi Artisanal Fisheries Development Project: Baseline Study of the Fisheries and Forestry sectors.

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**ENVIRONMENTAL
PROJECT
EXPERIENCE**

- Land reform researcher and development worker with BRC for communities acquiring land under the land claims and land redistribution programmes.

Environmental Impact Assessments (EIA)

- Knysna N2 Toll Highway-Bypass. (Project Manager)
- Toliara Sands Mining Project – Madagascar (Natural Resource Use Survey and Economic Impact Assessment).
- Madiba Bay Leisure Park Development – Social Impact Assessment.
- Scoping Process for the Grown Energy Biofuel Project in the Zambezi Province, Mozambique.
- Scoping Process for the Dutch Jatropha Consortium's proposed Jatropha Estate, Mozambique.
- Scoping Process for the Environmental Impact Assessment of Cape Nature's Proposed Eradication of Alien Fish in parts of four rivers in the Cape Floristic Region. CES in association with Enviro Fish Africa, Grahamstown.
- Atlantic Sands EIA, Strandfontein, Cape Town, SA.
- CSIR Biogas Plant, CSIR Campus, Pretoria, Gauteng, SA.

Environmental Resource Valuations

- Socio-Economic Study for the Garden Route Initiative's Marine Protected Areas. CES in Association with Anchor Environmental for WWF.

Miscellaneous

- Tsitsi Catchment Land Use Development Option Planning, former Transkei, SA, for ASGISA-EC.

Prefeasibility Assessments

- Dimbi Diamond Mine, Central African Republic.
- Transport options for the Corridor Sands Mining Project, Mozambique.

State of the Environment Reporting (SOER)

- Limpopo Province Phase 2 SOER

Strategic Environmental Assessments (SEA)

- Kentani Mining SEA – Wildcoast, EC Province, SA.
- Ngqushwa Municipality – Spatial Planning, EC, SA
- Amahlati Municipality – EC, SA
- Dept of Water Affairs & Forestry's Water Management Area 12 – focused on Afforestation potential. EC, SA.

Maura Talbot
Curriculum Vitae



**EMPLOYMENT
 EXPERIENCE
 (SEQUENTIAL
 LISTING)**

Principal Consultant, EOH Coastal & Environmental Services
1 June 2018 – Present

Freelance Environmental and Socio-Economic Consultant – Cape Town *May 2018 – Aug 2017*

Senior Environmental Consultant, Chand Environmental Consultants, Plumstead, Cape Town (Maternity Leave Replacement)
1 March 2017 – July 2017

Sabatical and Freelance Environmental and Socio-Economic Consultant – Cape Town *Feb 2017 – Aug 2016*

Landscape Mobiliser & Knowledge Broker, Living Lands NPO, Langkloof, Joubertina, Eastern Cape, SA. *Jan 2015 – July 2016*

Organisational Management – Living Lands (Part Time) *Jan 2013 – Dec 2014*

PhD Research Student, School of Governance, Stellenbosch University – Transdisciplinary Doctoral Programme
Sept 2011 – Dec 2014

Freelance Researcher & Consultant, Grahamstown, Langkloof & Cape Town, South Africa) *May 2010-June 2012*

Senior & Principal Environmental and Socio-Economic Consultant - Coastal & Environmental Services, Grahamstown, South Africa.
Jan 2005 – March 2010

Post-Graduate Student Research Supervisor – Dept. Environmental Science & Dept. of Economics, Rhodes University (Grahamstown, South Africa)
Feb 2001 – Dec 2010

- *Supervision of 3 Environmental Science Masters Students*
- *Supervision of 3 Economics Honours Students and 1 Economics Masters Student*

Lecturer (Part-Time) in Environmental Science, Dept. Environmental Science, Rhodes University (Grahamstown, South Africa). *April 1999 – Dec 2004*

Researcher (Part-Time), Dept. of Environmental Science, Rhodes

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PUBLICATIONS

Universit. April 1999 – Dec 2004

Academic Journal Copy Editing – NISC. 4 months in 2004

Freelance Consultant, Grahamstown, Eastern Cape Prov. South Africa. 2000 – 2005

Maternity Leave in Malawi
March 1997 – Oct 1998

Researcher & Project Manager – Institute of Social & Economic Research, Rhodes University, Grahamstown, SA. Nov 1995 – Feb 1997

Researcher & Development Worker – Border Rural Committee, Grahamstown & East London, SA. Jan 1992 – Oct 1995

Groundwork - Border Rural Committee Newsletter

- Putting the Poorest First: Rural Development, Groundwork Vol 1, No. 1, March 1993.
- Black Rural Communities Facing Strong Opposition to Communal Land Tenure, Vol 1, No. 1, March 1993.
- Settlement Patterns and Land Use: The Problems Communities Face When Moving onto New Land, Vol 1, No. 5, Sept 1993.
- New Land Tenure Legislation: How will it affect the rural trust areas' right to land?, Vol 1, No. 5, Sept 1993.
- Local Government Negotiating forum, Vol 1, No. 6, Oct 1993.
- Local Government in the Border Communities, Vol 1, No. 6, Oct 1993.

State farms for landless, Daily Dispatch, 5 May 1995.

2000: M.Andrew, E. Janse van Rensburg and C. Fabricius (2000) Three-way partnerships: Maximising the Value of Collaborative Research in Park-Neighbour Projects. Paper presented at the SANP's 'Towards Best Practice' Conference in May 2000.

2003: Land Use & Livelihoods. Programme for Land & Agrarian Studies (Plaas) Occasional Paper No. 8: Evaluating Land & Agrarian Reform In South Africa. University of the Western Cape, Cape Town.

2003: Land Use And Rural Livelihoods: Have They Been Enhanced Through Land Reform? Policy Brief No. 5, Debating Land Reform And Rural Development. Programme for Land And Agrarian Studies, University Of The Western Cape, Cape Town.

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COURSES

Andrew, M & Fox, R.C. (2004) 'Under-cultivation' and intensification in the Transkei: a case study of historical changes in the use of arable land in Nomp, Shixini. Development Southern Africa, Vol. 21, No. 4, pp 688-706.

Andrew, M & Van Vlaenderen H. (2010) Commercial Biofuel Land Deals and Environmental and Social Impact Assessments in Africa: Three Case studies in Mozambique and Sierra Leone. Institute for Poverty, Land and Agrarian Studies (PLAAS), Land Deal Politics Initiative (LDPI) Working Paper 1.

Talbot M & Van den Broeck D. 2016. Shifting from Individual to Collective Action: Living Land's Experience in the Baviaanskloof, South Africa. Book Chapter 8.3 in Land Restoration: Reclaiming Landscapes for a Sustainable Future. Edited by Chabay I, Frick M and Helgeson J. Published by Academic Press (Elsevier), Waltham, USA. P. 599.

- 1993: Training Course: Participatory Rural Appraisal, organised by MIDNET, 19-26 April 1993, Bulwer, Natal.
- 1996: Training Workshop: Project Planning and Management. Run by CENCE at the University of Port Elizabeth in November 1996.
- 2008 (10-15 May) Centre for Environmental Economics and Policy in Africa. Biannual Research Workshop and Biofuels Modeling Training session. Cape Town. CEEPA is based at the University of Pretoria, Agricultural and Resource Economics Department.
- 2013 Non-Violent Communication – Introductory Course and Conflict Mediation, 6 days August, Cape Town, SA.
Landscape Functions and People: Landscape Leadership, Conflicts and Collaboration, 17 to 29 November 2014, Centre for People and Forests, Bangkok, Thailand.
- 2014 Presencing Institute Foundation Course – Collective Social Learning, March 2014 Cape Town, SA.
- 2014 Qualitative Data Analysis and Atlas.it Course, 2 weeks August 2014, Stellenbosch University, Sociology Dept., SA.
- 2015 Non-Violent Communication – Intermediary Course, 10 days, July, San Francisco, USA
- 2016 Getting Things Done – Time and task management Course, 2 days, Sept, Cape Town, SA.
- 2018 Monitoring And Evaluation Training Course, CDRA, Woodstock, Cape Town, 22-25 Oct 2018

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CERTIFICATION

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Maura Talbot

Maura Talbot

Date: 25 Oct 2018



Erika Du Plessis

Director

Communication and Stakeholder Engagement, Africa

Qualifications

International Certification

International Association for Public Participation (USA)

Chairperson, International Association for Public Participation Southern Africa (IAP2 SA)

Specialisation

Communication and stakeholder engagement

Years in industry

18

Erika is a Director at Aurecon and the leader of the Communication and Stakeholder Engagement Unit in Africa. She has been involved in social and public participation processes for the past 19 years in various parts of the world, mostly in developing countries like Ghana, Namibia, Tanzania, Uganda, Mozambique and South Africa. She has extensive experience in public participation, social impact assessments and dealing with sensitive stakeholders.

She builds trust relationships between companies and their stakeholders; conveys risk information; conducts public participation for environmental authorisation processes in mining, industry and other. Furthermore, she conducts public sensitivity analyses pertaining to companies and projects (existing or proposed), conducts corporate or community risk assessments as part of Safety, Health, Environment and Quality (SHEQ) assessments.

Erika manages communication and awareness creation campaigns to achieve clients' goals while maintaining close contact with the needs of marginalised communities. In line with National Environmental Management Act (NEMA) and Mineral and Petroleum Resources Development Act (MPRDA) requirements, she builds capacity of communities by way of posters, fact sheets, one-on-one discussions and site visits to mining projects. She has lectured across the globe on good practice principles for social assessment in the extractive industry. Her session on "The Use of Social Media in Public Participation" received great acclaim at the 2015 International Association of Impact Assessment conference in Florence, Italy.

Erika holds international certification from the International Association for Public Participation (USA), and is currently the Chair for the International Association for Public Participation (South Africa) (IAP2SA).

Experience (abridged)

Various social audits to IFC standards, Kenya, Ethiopia, Mozambique, SA, Tanzania & Uganda, Agri-Vie Investment Company, 2015 - 2017, Social Auditor

Audits of various investment companies were undertaken in line with lender requirements as prescribed by the IFC Performance Standards. Responsible as

Social and Health and Safety Auditor to determine IFC compliance, physical audits of flower farms, fruit farms, coconut processing plants, fisheries, marine farms, olive farms, coffee roasting plants and juice manufacturers.

Construction of a new sulphuric acid plant, Namibia, Dundee Precious Metals, Tsumeb, 2010 - 2017, Stakeholder Engagement Lead

The project comprised an authorisation process for the construction of a new sulphuric acid plant. Responsible for public participation process for the proposed new plant. This included the facilitation and scribing of a wide range of stakeholder meetings to obtain issues and comments regarding the proposed new plant. It also entailed the compilation of public participation documents to indicate a legally defensible process.

Oil and gas exploration, Lake Albert, Hoima District, Uganda, China National Offshore Oil Corporation (CNOOC), 2011 - 2015, Leader of Stakeholder Engagement process

The project involved the exploration of oil fields underneath Lake Albert and the placement of a pipeline to the refinery at Hoima, some 60 km from the well pads. Responsible for stakeholder engagement and social impact assessment (SIA) to convey the proposed oil and gas extraction project at Lake Albert. This included working in local languages, leading a local team, compiling user friendly documentation, posters, booklets and fact sheets to enable agriculturally based community to understand the operation of an oil and gas plant and its accompanying pipelines. Other duties included working with local enumerators to collect quantitative and qualitative information, as well as planning and holding community meetings in deep rural areas while ensuring that stakeholder concerns are documented and that a trust relationship is forged between the proponent and its neighbours.

Exploration drilling for natural gas, Western Cape Province, South Africa, Ice Finance, Advasol, 2010 - 2012, Leader of Public Participation Process

The project entailed the investigation of conducting an exploration drilling programme to establish the presence of natural gas along the coast line. Responsible for stakeholder consultation with communities, which included turning around negative perceptions, building capacity on extent of exploration drilling and the non-invasive nature of such drilling. Other duties included allowing stakeholders to vent their anger and fears created as a result of lack of information. Open houses along whole South African coastline formed part of this process, providing information on nature of exploration, explaining technical data to non-technical people, providing a platform where stakeholders could "grandstand" and allowing them to do so. Duties also extended to fielding media and regulator questions regarding the process, as well as building trust between the clients and the stakeholders.

Permitting process for a new gold mine, Ghana, Golden Ridge Resources Limited, 2009 - 2010, Stakeholder Engagement Specialist

The project comprised an authorisation process for a proposed new gold mine in an area between a number of villages where people traditionally practice artisanal mining and are not welcoming to mining companies invading their area. Responsible for design of social and stakeholder engagement process for the permitting process for a large open cast gold mine in the Western Region of Ghana. This included planning a six-month community engagement process accompanied by appropriate awareness creation material. It also entailed providing assistance in the planning and execution of a Ghana Environmental Protection Agency (EPA) public hearing.

Kubi Gold mine regulatory report, Ghana, PMI Gold, Kubi Mine, 2009, Project Leader

The project entailed a desktop exercise in determining regulatory requirements and closure specifications for a gold mine in Ghana. Responsible for compilation of a report on environmental and social regulatory requirements as well as mine closure specifications in Ghana.

Stakeholder engagement for Brong Ahafo Gold Mine, Ghana, Newmont Ghana Gold Ltd, 2006 - 2008, Stakeholder Engagement Team Lead

The project involved conducting a stakeholder engagement process to build a relationship with 10 villages surrounding the mine where huge mistrust, vandalism and road blockages occurred due to the perceptions of the communities around gold mining and the company. Responsible for execution of Public Consultation and Disclosure Plan to IFC Performance Standards for environmental impact assessment (EIA) for proposed Ahafo Stage 2 mining project in Western Ghana, leading a 20-person team of Ghanaian nationals and expatriates.

Expansion of mine footprint, Namaqualand, South Africa, Anglo Base Metals, 2005 - 2007, Public Participation Lead

The project comprised the expansion of mine footprint at the Namakwa Sands mine. Responsible for conducting public participation process, compiling all documents for submission to authorities, conducting stakeholder engagement meetings with land owners, authorities and other stakeholders, and facilitating various public meetings throughout the study area and with authorities in Cape Town. She further assisted the company in conflict resolution with stakeholders regarding components of the proposed expansion.

Olifants River Water Development Programme environmental impact assessment (EIA), Limpopo Province, South Africa, Department of Water Affairs and Sanitation, 2005 - 2007, Public Participation Lead/Facilitator

The project entailed an environmental impact assessment (EIA) for a proposed large dam (by World Commission on Dams standards) and 300 km of bulk infrastructure. Responsible as head of landowner consultation for facilitating small-group meetings, producing issues and response reports, and managing land-owner issues. It also entailed facilitating information transfer and awareness creation to land owners by technical/engineering team members. She further acted as principal liaison between proponent and land owners.

Environmental impact assessment (EIA) for new stormwater control dam, Gauteng Province, South Africa, Sappi, 2004 - 2006, Public Participation Facilitator and Process Lead

In this project, an environmental impact assessment (EIA) was undertaken for a new stormwater control dam at the Sappi Enstra Paper Mill in Springs. Responsible for conducting the public participation process, compiling the background information document and all further documentation, liaised with authorities regarding licencing procedure, as well as organising and facilitating authority workshop for the expansion. She also compiled an issues and response report and compiled a public participation chapter of the draft scoping report.

Environmental impact assessment (EIA) for coal transportation, Mpumalanga Province, South Africa, Eskom, 2004 - 2006, Stakeholder Liaison Officer

The project comprised an environmental impact assessment (EIA) for coal transportation from the Witbank Coal Fields to the Tutuka and Majuba Power Station, involving initially five alternative route corridors over roughly 600 km, either rail or conveyor. Responsible for the stakeholder liaison for 80 private landowners. This included facilitating small-group meetings, producing issues and response reports, and managing land-owner issues. She also contributed to the compilation of the draft environmental impact report; facilitated information transfer to land owners by technical/engineering team members.

Stakeholder engagement strategy for adjacent community, Nelspruit, Mpumalanga Province, South Africa, Manganese Metal Company, 2003 - 2005, Project Lead

The project entailed the management of community unrest as a result of proximity of hazardous waste site to their residences. Responsible for developing a stakeholder engagement strategy for a community that lives adjacent to a hazardous waste site. This included major awareness creation in the form of

monthly newsletters to keep the community informed, fact sheets regarding history, air quality and health aspects, environmental feedback meetings, site visits and one-on-one discussions to allay community members' fears and concerns.

New fines residue facility at De Beers' Finsch mine, Kimberley, Northern Cape Province, South Africa, De Beers, 2003 - 2004, Public Participation and Fatal Flaw Analysis Lead

An environmental authorisation process was undertaken for a new fines residue facility at De Beers' Finsch mine. Responsible for conducting public participation for alternatives generation and environmental authorisation process for new fines residue facility at the mine, involving wide-ranging multi-sectoral stakeholders with an interest in or affected by mining operations. This included developing awareness creation materials, facilitating focus group meetings, conducting personal stakeholder liaison and producing and coordinating transfer of technical information to the community. Later during the project, she also conducted a public sensitivity and fatal flaw analysis for the expansion of the mine and presented findings to De Beers mine management, thereby informing their decisions. She also acted as advisor to De Beers' environmental personnel for conducting an environmental public progress meeting, and acted as independent facilitator at this meeting.

Corporate social risk assessment for Anglo Base Metals Skorpion Zinc Mine, Namibia, Anglo Base Metals, 2004, Corporate Social Risk Assessor

The project comprised an assessment of the corporate social risk and sustainable development for Anglo Base Metals Skorpion Zinc Mine in Namibia. As member of the three-person team, she was responsible for the assessment of corporate social risk and sustainable development. This included interviewing a wide range of mine's stakeholders, including representatives of informal community made up of 11 nationalities and around 20 languages. She also assessed current levels of community engagement and constraints; assessed risk to company social license; and compiled recommendations.

APPENDIX G: ASSESSMENT METHODOLOGY

METHODOLOGY USED FOR THE ASSESSMENT OF POTENTIAL IMPACTS

All impacts (direct and cumulative) of the above-mentioned issues, as well as other issues that may have been identified throughout the report will be assessed in terms of the following criteria:

Impact Assessment Methodology	
<p>For each potential impact, the EXTENT (Spatial scale), MAGNITUDE (degree of the impact), DURATION (time scale), PROBABILITY (occurrence), will be assessed by the EAP as well as the Specialists. The assessment of the above criteria will be used to determine the significance of each impact, with and without the implementation of the proposed mitigation measures. The scale to be used to assess these variables and to define the rating categories are tabulated in Table 4 and Table 5 below.</p>	
<p>Table 1: Evaluation components, ranking scales and descriptions (criteria).</p>	
Evaluation component	Ranking scale and description (criteria)
MAGNITUDE of NEGATIVE IMPACT (at the indicated spatial scale)	<p>Very high: Bio-physical and/or social functions and/or processes might be <i>severely</i> altered.</p> <p>High: Bio-physical and/or social functions and/or processes might be <i>considerably</i> altered.</p> <p>Medium: Bio-physical and/or social functions and/or processes might be <i>notably</i> altered.</p> <p>Low : Bio-physical and/or social functions and/or processes might be <i>slightly</i> altered.</p> <p>Very Low: Bio-physical and/or social functions and/or processes might be <i>negligibly</i> altered.</p> <p>Zero: Bio-physical and/or social functions and/or processes will remain <i>unaltered</i>.</p>
MAGNITUDE of POSITIVE IMPACT (at the indicated spatial scale)	<p>Very high (positive): Bio-physical and/or social functions and/or processes might be <i>substantially</i> enhanced.</p> <p>High (positive): Bio-physical and/or social functions and/or processes might be <i>considerably</i> enhanced.</p> <p>Medium (positive): Bio-physical and/or social functions and/or processes might be <i>notably</i> enhanced.</p> <p>Low (positive): Bio-physical and/or social functions and/or processes might be <i>slightly</i> enhanced.</p> <p>Very Low (positive): Bio-physical and/or social functions and/or processes might be <i>negligibly</i> enhanced.</p> <p>Zero (positive): Bio-physical and/or social functions and/or processes will remain <i>unaltered</i>.</p>
DURATION	<p>Permanent</p> <p>Long term: Impact ceases after operational phase/life of the activity > 10 years.</p> <p>Medium term: Impact might occur during the operational phase/life of the activity – 10 years.</p> <p>Short term: Less than one year.</p> <p>Immediate: Less than 1 month.</p>
EXTENT (or spatial scale/influence of impact)	<p>International: Beyond National boundaries.</p> <p>National: Beyond Provincial boundaries and within National boundaries.</p> <p>Regional: Beyond 5 km of the proposed development and within Provincial boundaries.</p> <p>Local: Within 5 km of the proposed development.</p> <p>1 - Site-specific: On site or within 100 m of the site boundary.</p>

FREQUENCY of occurrence of impact	<p>5 – Continuous: Impact will occur continuously throughout the lifetime of the activity.</p> <p>4 – Very Frequent: Impact will occur a few times a week to daily.</p> <p>3 – Frequent: Impact will occur a few times a month.</p> <p>2 – Occasional: Impact will occur once or twice a year.</p> <p>1 – Very Rare: Impact will occur once or twice a decade.</p>
PROBABILITY (of occurrence)	<p>5 - Definite: >95% chance of the potential impact occurring.</p> <p>4 - High probability: 75% - 95% chance of the potential impact occurring.</p> <p>3 - Medium probability: 25% - 75% chance of the potential impact occurring</p> <p>2 - Low probability: 5% - 25% chance of the potential impact occurring.</p> <p>1 - Improbable: <5% chance of the potential impact occurring.</p>
Evaluation component	Ranking scale and description (criteria)
CUMULATIVE impacts	<p>High: The activity is one of several similar past, present or future activities in the same geographical area, and might contribute to a very significant combined impact on the natural, cultural, and/or socio-economic resources of local, regional or national concern.</p> <p>Medium: The activity is one of a few similar past, present or future activities in the same geographical area, and might have a combined impact of moderate significance on the natural, cultural, and/or socio-economic resources of local, regional or national concern.</p> <p>Low: The activity is localised and might have a negligible cumulative impact.</p> <p>None: No cumulative impact on the environment.</p>

Table 2: Definition of significance ratings (positive and negative).

Environmental Significance	Description
Very high (VH)	An impact of very high significance will mean that the project cannot proceed, and that impacts are irreversible, regardless of available mitigation options.
High (H)	An impact of high significance which could influence a decision about whether or not to proceed with the proposed project, regardless of available mitigation options.
Medium-high (MH)	If left unmanaged, an impact of medium-high significance could influence a decision about whether or not to proceed with a proposed project. Mitigation options should be relooked.
Medium (M)	If left unmanaged, an impact of moderate significance could influence a decision about whether or not to proceed with a proposed project.

Low (L)	An impact of Low is likely to contribute to positive decisions about whether or not to proceed with the project. It will have little real effect and is unlikely to have an influence on project design or alternative motivation.
Positive impact (+)	A positive impact is likely to result in a positive consequence/effect, and is likely to contribute to positive decisions about whether or not to proceed with the project.

Once the evaluation components have been ranked for each potential impact, the significance of each potential impact will be assessed and assigned a significance rating, as per Table 5 above.