

APPENDIX E3: COMMENTS AND RESPONSES REPORT

#	I&AP Details (X = contact has been added to stakeholder database)	Date and mode of communication	Issue raised	Response (as amended for the purposes of the scoping report)
1	Environmental related comments and responses			
1.1	K.A. Fortuin	X Email, Emailed registration form, 18 October 2019	How will the pollution be controlled? Environmental impacts and their controls? Social impacts on residing community? Water consumption control?	Various specialist studies including biodiversity, ground water, surface water and air quality are being undertaken to identify potential impacts and provide mitigation measures. These will be addressed in the EIA and EMPr which will be circulated for public review at a later stage in the process.
1.2	M. Botha	X Emailed registration form, 18 October 2019	Who is the CEA for the smelter? There is incomplete or non-compliant mitigation from previous environmental authorisations. How will this be managed in the EIA process? DEFF is not listed as regulatory authority or an interested party.	The Competent Environmental Authority for the smelter application is the DMR. Please raise any concerns related to suspected non-compliance with previous environmental authorisations with the applicable authority – DMR, DENC or DWS. The Department of Environment, Forestry and Fisheries (DEFF, formerly DEA) has been included as an I&AP. A focus group meeting with the Department of Environment and Nature Conservation, Northern Cape, with whom BMM signed the original Gamsberg Biodiversity offset Agreement, will be held once the specialist biodiversity studies and air quality model are completed to get their inputs, comments and recommendations.
1.3	I. Basson o.b.o Pella NCMACA Branch	X Emailed letter, 28 October 2019	Firstly, we are sorry that we are responding so late, but we had to hold a meeting with our role players first. By email we thank you for taking us into account with the 3rd pipeline of the Orange River by Pella to Gamsberg. Secondly, we as Pella residents and riparian farmers have discovered a few years back that the invader plants are sucking up Orange River water at a tremendous rate. It	Black Mountain Mining (Pty) Ltd is proposing to upgrade the existing underground pipeline on behalf of Sedibeng Water. In order to do this the existing underground pipeline will be removed and a new one installed with a larger diameter in its place. There would, thus, still be only 2 pipelines within the servitude. This proposed pipeline upgrade will be undertaken as a separate Basic Assessment process and will have the relevant specialist study done to inform the project.

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				<p>stands along the banks of the river all the way to Witbank ridge.</p> <p>Thirdly, we as Pella residents have also discovered that the Orange River is saturated and will not be able to supply a third pipeline, so we say no to a third pipeline. It will not happen in the next 10 years, not in our river and not on our land. Sorry.</p> <p>Fourth, As Pella community forum, in 2017 we asked Vedanta to remove the invasive plant by the roots from the riverbanks. To date nothing has happened so where do they think the river should get enough water for their pipeline? They should have listened to us and done as we said, then maybe the Orange River could have been saved.</p> <p>We are sorry, but we refuse the construction of a third pipeline, because we want to protect this little bit of water for our community and future generations. We will not allow any pipeline construction.</p> <p>We wish you a thousand failures in the future.</p>	<p>The volume of water to be extracted by the upgraded pipeline is within the already authorised abstraction volumes which are included and allocated in the DWS reserve determination for the Orange River. No additional water volumes are being requested in this application.</p> <p>We note your concern regarding the presence and impacts of alien vegetation species along the river.</p>
1.4	S.A.C Hockaday	X	Emailed registration form, 1 November 2019	I would like to know if any measures were considered to limit direct and indirect greenhouse gas emissions.	A Climate Change specialist study has been commissioned for the Gamsberg Smelter Project to assess the emissions from the project and the potential impact on greenhouse gases.
1.5	A. Young o.b.o the Mesemb Study Group	X	Emailed registration form,	Current safeguards concerning preservation of succulent flora at the Gamsberg have been shown to be inadequate and until these issues are resolved no further developments that are likely to negatively impact the biodiversity of the Gamsberg should be undertaken. What specific measures	As part of the Gamsberg Smelter Project a Biodiversity specialist study is being undertaken to understand the current impacts from the Gamsberg Zinc Mine as well potential impacts from the

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			6 November 2019	will be taken by the mine to ensure that the floral biodiversity in the area is protected as a result of this development?	<p>operation of the smelter and associated facilities on the vegetation of the area.</p> <p>In addition to this an Offset Agreement is currently in place as well as a Biodiversity Management Plan (BMP) to manage the impacts of the mine. This BMP will be updated to include the Proposed Gamsberg Smelter Project.</p> <p>A focus group meeting with the Department of Environment and Nature Conservation, Northern Cape, with whom BMM signed the original Gamsberg Biodiversity offset Agreement, will be held once the specialist biodiversity studies and air quality model are completed to get their inputs, comments and recommendations.</p> <p>Implementation of Biodiversity Offset Agreement has resulted in the Proclamation of the Gamsberg Nature Reserve as Gazetted in the Northern Cape Provincial Gazette on 5 August 2019. The Gamsberg Nature Reserve was proclaimed as a Protected Area under the National Environmental Management Protected Area Act and the Management Plan as required by the NEMPA is currently being compiled by DENC. This will safeguard the conservation of succulents within the secured Gamsberg Nature Reserve for future generations.</p>
1.6	P. Mokomele o.b.o the Industrial Development Corporation	X	Emailed registration form, 12 November 2019	How will waste be treated and what will be the environmental effects?	<p>Process waste produced by the Gamsberg Smelter Project is proposed to be stored in a new Secured Landfill Facility as stabilised Jarofix. A full specialist ground and surface water studies will be undertaken to inform requirements and any potential impacts.</p> <p>Domestic and general waste will be sent to the existing Black Mountain Mining landfill facilities.</p>

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					Hazardous wastes will be removed by licenced contractors as is current practice at Gamsberg Zinc Mine.
1.7	P. Mokomele o.b.o the Industrial Development Corporation	X	Emailed registration form, 12 November 2019	Will the building of a smelter mean that there will be more people coming to the area? How will the influx be handled? Has the capacity of the municipality in terms of infrastructure been assessed to accommodate (the project?).	<p>Black Mountain Mining (Pty) Ltd and its associated Business Partners will follow a recruitment process that maximises the use of local skills as far as possible. It is anticipated that there will be some additional people moving to the area particularly where those skills are not available locally.</p> <p>There is a skills database in place which is planned to be reviewed in consultation with the DoL and the Khâi-Ma Municipality.</p> <p>A Socio-economic specialist study has been commissioned to assess the potential impact on the local infrastructure.</p>
1.8	K. Purnell, o.b.o Wilderness Foundation Africa	X	Emailed registration form, 15 December 2019	Wilderness Foundation Africa is concerned with the loss of biodiversity and whether it is being offset sufficiently.	<p>As part of the Gamsberg Smelter Project a Biodiversity specialist study is being undertaken to understand the current impacts of the Gamsberg Zinc Mine as well potential impacts from the operation of the smelter and associated facilities on the vegetation of the area.</p> <p>A focus group meeting with the Department of Environment and Nature Conservation, Northern Cape, with whom BMM signed the original Gamsberg Biodiversity offset Agreement, will be held once the specialist biodiversity studies and air quality model are completed to get their inputs, comments and recommendations.</p> <p>Implementation of Biodiversity Offset Agreement of Gamsberg has resulted in the Proclamation of the Gamsberg Nature Reserve as Gazetted in the Northern Cape Provincial Gazette on 5 August 2019. The Gamsberg Nature Reserve was proclaimed as a Protected area under the National Environmental Management Protected Area Act and the Management Plan as required by the NEMPA are currently being compiled by DENC. This will safeguard</p>

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					the conservation of succulents within the secured Gamsberg Nature Reserve for future generations.
1.9	K. Purnell, o.b.o Wilderness Foundation Africa	X	Emailed registration form, 15 December 2019	We are very concerned with the fallout from sulphur and its impacts on the surrounding environment, which could affect a large area around the smelter. This needs to be adequately addressed through a thorough modelling of the sulphur fallout in the EIA.	<p>An Air Quality specialist study is being undertaken to understand emissions from the proposed Gamsberg Smelter. These emissions will be modelled to give an understanding of potential impacts on the surrounding environment as well as mitigation measures provided to minimise potential impacts.</p> <p>Predicted fallout from the modelling of emissions will be interpreted by biodiversity specialists to assess the potential impact on vegetation. Especially the succulent species.</p> <p>In addition, the Gamsberg Smelter has been designed with the latest technology to minimise SO₂ emissions during the acid making process and in adherence with relevant national guidelines and legal requirements.</p>
1.10	Johan van Dyk	X	Emailed registration form, 29 January 2020	<p>My only concern is sustainability, hence my question:</p> <p>1. History in the wider Namaqualand area shows that mining activities are continuing in the area, and once the resource has been depleted, little infrastructure is left behind to support, maintain and create sustainable work and long term investment opportunities for the community. There are various examples of historical mining activities in the area that left the area as “ghost towns” with little sustainable businesses established (which only benefits a few)...i.e. Koiingnaas, Kleinzee, Alexanderbay, Baken / Sanddrift, Nababeep, O’okiep, Carolusberg..... to name a few. Springbok is the only “big hub” in the area.</p> <p>2. My question is, what legacy will the responsible company leave once the resource is completed for example in 20/30</p>	Black Mountain Mining (Pty) Ltd and Vedanta Zinc International are engaging with a range of government authorities to develop a long-term, post-mining economy for the Aggeneys area.

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				years' time? Another Ghost Town? Aggeneys is a mining town with majority mining activities. How will the company ensure long term sustainability and employment opportunities post life of mine? Could you present a long term Social Development Plan post life of mine?	
2	Technical / Technology related comments and responses				
2.1	J. Crowder o.b.o Standard Bank	X	Email, 18 October 2019	Thank you very much for the information. Do you perhaps have timelines for the proposed project please?	Pending approval of the EIA and EMPr, construction is planned to start in 2021. The construction phase will take 2 to 3 years.
2.2	J. Leader	X	Emailed registration form, 18 October 2019	Is there a proposed finish date yet?	Pending approval of the EIA and EMPr, construction is planned to start in 2021. The construction phase will take 2 to 3 years.
2.3	S. Meijers o.b.o ELB Engineering Services	X	Emailed registration form, 22 October 2019	Has phase 2 been considered in your layouts?	Phase 2 has been considered and is already included in all layouts as it is part of the existing Environmental Authorisation and EMPr for the Gamsberg Zinc Mine. The anticipated impacts of Phase 2 will also be assessed cumulatively with additional impacts from the proposed Gamsberg Smelter Project.
2.4	C. Steyn o.b.o Connolee Investment	X	Emailed registration form,	I am interested in the renewable energy section.	A zinc smelter is a power intensive plant and electrical power plays a major role in the operation with power outages severely affecting production capacity. As such it is essential that power sourcing be reliable with 100 percent availability for uninterrupted

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			25 October 2019		<p>operation of the plant. The following alternative power sources are being considered:</p> <ul style="list-style-type: none"> • Eskom grid substation; • Captive solar power plant; • Wind based power plant; and • Hybrid model (including both Eskom and renewable source). <p>Considerable focus is placed on utilising alternative/hybrid energy sources such as wind and solar power sources, and not total reliance on the ESKOM grid.</p>
2.5	S.A.C Hockaday	X	Emailed registration form, 1 November 2019	I would like to know the measures taken to ensure water conservation.	The design of the smelter has looked at minimising water consumption against the benchmark of existing zinc smelters with similar capacity around the world and has been designed to include an effluent recycling system with zero liquid discharge. Black Mountain Mining (Pty) Ltd will also not exceed the current water allowance.
2.6	S.A.C Hockaday	X	Emailed registration form, 1 November 2019	I would like to know the process alternatives considered and how the electrolytic process was selected to ensure it is appropriate to the resource	<p>A process selection study was carried out by Vedanta Zinc International at conceptual level which involved identifying the technologies currently being used by the largest zinc producers worldwide as a benchmark. The study resulted in the selection of the following two process options:</p> <ul style="list-style-type: none"> • Roast-Leach-Electrowinning (R-L-E) with Jarosite precipitation; and • High Pressure/ Atmospheric Acid Leach. <p>The survey of the largest global zinc producers confirmed that conventional Roast-Leach-Electrowinning (R-L-E) is by far the most</p>

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					used and efficient processing route within excess of 85% of the zinc producers using variations of the process.
2.7	S.A.C Hockaday	X	Emailed registration form, 1 November 2019	I would like to know if the use of renewable energy sources were considered as alternative to grid electricity dependence.	<p>A zinc smelter is a power intensive plant and electrical power plays a major role in the operation with power outages severely affecting production capacity. As such it is essential that power sourcing be reliable with 100 percent availability for uninterrupted operation of the plant. The following alternative power sources are being considered:</p> <ul style="list-style-type: none"> • Eskom grid substation; • Captive solar power plant; • Wind based power plant; and • Hybrid model (including both Eskom and renewable source). <p>Considerable focus is placed on utilising alternative/hybrid energy sources such as wind and solar power sources, and not total reliance on the Eskom grid.</p>
2.8	N. Uys o.b.o Minerals to Metals Initiative, University of cape Town	X	Emailed registration form, 13 November 2019	<p>Is the use of the term smelter not misleading? Our understanding is that it is a Roast-Leach-Electrowinning (R-L-E) process as opposed to a smelter.</p> <p>Roasting: A pyrometallurgical process where ore/concentrates is heated to below its melting point, in the presence of air, in order to oxidise impurities. In the case of zinc sulphide ores, sulphur is oxidised. Most common equipment for this process is a rotary kiln.</p> <p>Smelting: A pyrometallurgical process where metals are extracted from ore/concentrate heating above the melting point of all constituents in a furnace and separating into</p>	<p>“Zinc smelter” is the most commonly used terminology worldwide for extracting zinc metal from zinc bearing concentrate. Conventional R-L-E is one of the process routes which is intended to be implemented to treat the Gamsberg zinc concentrate.</p> <p>At the Gamsberg Zinc Smelter it is the intention to apply the Roasting process, where in the presence of air, the zinc sulphide is oxidised to zinc oxide and sulphur in concentrate is oxidised to sulphur dioxide which is cleaned and converted to sulphuric acid. The process is exothermic and auto thermal.</p>

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			<p>metal rich (blister, matte) and oxide-rich (slag) phases that are tapped separately from the furnace.</p> <p>Questions:</p> <p>Technology</p> <ul style="list-style-type: none"> • What was the driving factor for the Roast-Leach-Electrowinning (R-L-E) technology choice? <ul style="list-style-type: none"> ○ What is the fuel source for the roasting step (coal, gas, diesel), where is it coming from and how is it stored? ○ What are the exhausts from the R-L-E process? ○ What is the expected CO2 footprint? ○ Are there any deleterious metals/dust in the exhaust gas? ○ Has gas dispersion been modelled? ○ Has any means of CO2 capture been considered? • What other technology options (as opposed to R-L-E) were considered (e.g. pressure leaching)? <p>Products</p> <ul style="list-style-type: none"> • Apart from zinc and sulphuric acid, are there any other proposed or potential sellable products (e.g. metal impurities such as silver, indium, germanium which are removed during purification)? If there are potential other sellable products, what is hindering their inclusion in the process flowsheet? • Is there a reliable market for sulphuric acid? <ul style="list-style-type: none"> ○ If so where is the market? ○ How will it be stored and transported? 	<p>The technical process queries have been addressed in Section Error! Reference source not found..</p>

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			<ul style="list-style-type: none"> • Is there potential for a close-by facility for fertiliser production? <ul style="list-style-type: none"> ○ Is there a market for fertiliser? • Will all the concentrate be processed by the proposed refining process, or will a portion of the concentrate be exported? <p>Waste</p> <ul style="list-style-type: none"> • What are the proposed waste management strategies? <ul style="list-style-type: none"> ○ In terms of leach residues, impurity removal products, flue-gas precipitates, etc. ○ What is the current plan for iron precipitates (Jarosite) and gypsum products? ○ Have any other options for minimisation/elimination of waste production been considered? • What is the expected department of deleterious elements into waste streams? <p>Utilities</p> <ul style="list-style-type: none"> • Is the Eskom Aggeneys Substation the sole source of the plant's electricity requirements? <ul style="list-style-type: none"> ○ What is the anticipated electrical power demand for the process, particularly the energy intensive electrowinning step? ○ Can Eskom Aggeneys Substation accommodate this additional electricity demand? ○ What are the impacts associated with this (locally and nationally)? 	<p>Leach residues with a potential market value such as Manganese oxides will be sold into the market. The remaining hazardous waste streams such as Jarosite will be stabilised to Jarofix and disposed of to a dedicated secure landfill facility in close proximity to the smelter complex.</p> <p>Samples of Jarosite and jarofix obtained from sister operations in India that have a similar concentrate make-up as the Gamsberg Zinc Mine will be analysed to determine waste content and assist with the waste classification.</p> <p>When fully reliant on Eskom for electricity supply the Aggeneys Substation will be the sole source of electricity, however, as part of the design of the project the sole reliance on Eskom is being offset by investigating the implementation of alternative sources for electricity such as solar, wind power and various combinations thereof.</p>

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				<ul style="list-style-type: none"> ○ What additional environmental concerns need to be addressed in building the power line from the substation? <p>Given an already constrained national grid, what is the 'backup' plan if Eskom's electricity provision is constrained (periods of less or no electricity)?</p>	<p>The maximum demand anticipated is 150MW.</p> <p>The current Aggneys Eskom substation will be upgraded as part of the project and additional transformers will be installed at the substation. Installation of the additional transformers will increase the footprint of the current substation slightly.</p> <p>The current power pylons of the installed power line could be utilised as it was constructed to enable the replacement of only the power line itself and not the pylons</p> <p>Active partnerships is being investigated with alternative power producers as per the IPP process. Currently there have been no such developments in the vicinity of the Gamsberg Smelter Project due to lack of contracts with Eskom.</p>
3	Procurement of Services (people offering their services) related comments and responses				
3.1	C.G. March	X	Emailed registration form, 16 October 2019	Mostly interested in the job creation aspects as well as the prospect(ive) projects social economic development objectives.	<p>During the construction phase approximately 6 000 jobs will be created and 1 200 during operations.</p> <p>During the construction phase the Business Partners will be aligned with Black Mountain Mining (Pty) Ltd/ Department of Labour (DoL)/ Khâi-Ma Municipality requirements.</p> <p>For the operational phase the normal Black Mountain Mining (Pty) Ltd recruitment process will be in place.</p> <p>Black Mountain Mining (Pty) Ltd have invested more than R100 million in LED projects incl. community development between April 2014 and December 2019 towards empowering of community members. Black Mountain Mine (Pty) Ltd has further</p>

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					committed to spend close to R150 million over the next five years (2019-2023) on local economic development initiatives.
3.2	E. Beukes	X	Emailed registration form, 17 October 2019	<p>With the development of the new Gamsberg Zinc Mine there has been no significant differences in our communities in terms of development and economic empowerment despite millions of rand raised through the SLP being spent.</p> <p>How will the new smelter help improve the economic empowerment of our local communities?</p> <p>How can it help to employ fewer contractors outside the Northern Cape who are impoverishing our small businesses?</p> <p>How can incumbent contractors be forced to subcontract small businesses for the purpose of building them?</p> <p>Will the mine stop bringing in (external, outside Khâi-Ma) people and companies while we have local capacity?</p> <p>Compared to Postmasburg which expanded to the new mines, how will the smelter contribute so that we see similar development in our towns?</p> <p>“Contact details for L. Steenkamp provided.”</p>	<p>Black Mountain Mining (Pty) Ltd currently contributes towards the employment of approximately 2 850 people (direct/indirect). Of the 1 804 people directly employed, Khâi-Ma employees represent 25% of the total employment and Namakwa as a whole 61%. Gamsberg Zinc Mine has contributed significantly to the local employment increase experienced since the start of its plant operations in 2018.</p> <p>Currently 177 community members are enrolled at the TVET College in Upington. This is planned to increase to approximately 250 over 2020. All candidates will have the opportunity to be employed.</p> <p>Black Mountain Mining (Pty) Ltd will ensure that the Business Partners follow the required recruitment process and prioritise local people.</p> <p>Black Mountain Mining (Pty) Ltd have invested more than R100 million in LED projects including community development between April 2014 and December 2019 towards empowering of community members. Local skills will be prioritised for employment. There is a skills database in place which is planned to be reviewed in consultation with the DoL and the Khâi-Ma Municipality.</p> <p>Black Mountain Mining (Pty) Ltd will be implementing a preferential procurement policy in April 2020 which aims to address the current shortcoming in the Enterprise and Local Supplier Development process.</p>

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					<p>Black Mountain Mining (Pty) Ltd has spent just over R4.2 million towards small business support and enterprise development. It is Black Mountain Mining (Pty) Ltd's aim to ensure that SMME mentoring and support are implemented and provided.</p> <p>There is a process in place for businesses to register for providing services to Black Mountain Mining (Pty) Ltd. Black Mountain Mining (Pty) Ltd is committed and will continue to encourage our business partners to procure material or services as far as possible from our local suppliers.</p>
3.3	G. Stock, o.b.o Moolmans	X	Emailed registration form, 17 October 2019	Please to keep us informed of the EIA development as it progresses.	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
3.4	I. Andrea o.b.o Southey Contracting	X	Emailed registration form, 17 October 2019	We were part of Phase 1 and completed the scaffolding for civils and mechanical work without any injuries.	Thank you for your comment.
3.5	M. van Kuijeren o.b.o B&W Instrumentation & Electrical	X	Emailed registration form, 17 October 2019	<p>B&W complied 100% on the Vedanta Environmental Management Phase throughout the Project Construction Phase.</p> <p>B&W complied 100% on the Vedanta Safety Management Plan, achieving 100% Safety Audit via Vedanta and their Safety Agents 8 months in a row.</p>	Thank you for your comment.

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				<p>B&W also received the Safety Excellence award for the Gamsberg Zinc Mine 1st Phase presented by Vedanta CEO and Chairman.</p> <p>B&W also won the Reticulation Contractor of the Year by the ECA (Electrical Contractors Association) for the OHL and Substation Installation Scope of Work on the Gamsberg Project.</p> <p>B&W was runner-up for the National Safety Award Contractor of the Year by the ECA for the Gamsberg Project.</p> <p>B&W was also runner-up for the Installation Contractor of the Year-Industrial by the ECA for the Gamsberg Project.</p>	
3.6	T. Padotan o.b.o Roadlab	X	Emailed registration form, 17 October 2019	We conduct civil engineering materials testing.	Thank you for your comment
3.7	C. Steyn o.b.o EOH	X	Emailed registration form, 27 October 2019	Job opportunities should be positive.	<p>During the construction phase approximately 6 000 jobs will be created and 1 200 during operations.</p> <p>During the construction phase the Business Partners will be aligned with Black Mountain Mining (Pty) Ltd/ Department of Labour (DoL)/ Khâi-Ma Municipality requirements.</p> <p>For the operational phase the normal Black Mountain Mining (Pty) Ltd recruitment process will be in place.</p>
3.8	M. Vogel o.b.o CSG Foods (Pty) Ltd	X	Emailed registration form,	We are South African registered company and a subsidiary of CSG Group of Companies. CSG Foods specialize in Camp Construction, Camp Management, Catering, Cleaning, Laundry and Related Services. We will without hesitation take you to some of our current sites in order to introduce	Thank you for your comment

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			5 November 2019	you to our current clients for reference purposes and will be able to assist you immediately with proposed solutions and pricing you might require.	
3.9	P. Mokomele o.b.o the Industrial Development Corporation	X	Emailed registration form, 12 November 2019	I would be interested in knowing how unemployment will be impacted.	During the construction phase approximately 6 000 jobs will be created and 1 200 during operations. During the construction phase the Business Partners will be aligned with Black Mountain Mining (Pty) Ltd/ Department of Labour (DoL)/ Khâi-Ma Municipality requirements. For the operational phase the normal Black Mountain Mining (Pty) Ltd recruitment process will be in place.
3.10	D. Bursic o.b.o Novatec	X	Emailed registration form, 12 November 2019	As supplier of control system (system integrator), LV equipment (MCC, PLC, RIO, LCS and other similar types) on Gamsberg Project phase 1, we are showing interest for future project phases (smelter, second concentrator plant) that will follow.	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
3.11	R. Stuurman, o.b.o Desert Road Inn	X	Emailed registration form, 18 November 2019	As the Social and Labour Plan says, local small business must be uplifted. We as small business owners in Khâi-Ma gained nothing from the projects at Gamsberg. I hope this project will not be the same as the first one.	Black Mountain Mining (Pty) Ltd has spent just over R4.2 million towards small business support and enterprise development. It is Black Mountain Mining (Pty) Ltd's aim to ensure that SMME mentoring and support are implemented and provided. Black Mountain Mining (Pty) Ltd
3.12	R. Nortje, o.b.o Rowena's Cottage	X	Email, 18 November 2019	As an entrepreneur, and as an interested party, I would like to congratulate you in development that is taking place in our Municipal Area. Question will be who will benefit in this project and how? With the first development of the current Plant that is operational, outside company's benefited and left with the	Thank you for your comment . There is a process in place for businesses to register for providing services to Black Mountain Mining (Pty) Ltd. Black Mountain Mining (Pty) Ltd is committed and will continue to encourage our

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			Capital. Will it be the repeat of future beneficiaries? I am a black female business owner. My business does purified water whereby the machine is an upmarket RO 4000 Reverse Osmosis Machine. My company did not benefit from the first project. Pofadder itself was not developed and business shift to Springbok and Kakamas. Are we going to see a repeat? My Company's name is Rowena's Cottage, producing 'Pofadder Water'.	business partners to procure material or services as far as possible from our local suppliers. Rowena's cottage is currently benefitting from business from the current operations at Gamsberg and Deeps. Black Mountain Mining (Pty) Ltd will continue to encourage business partners to procure material or services, as far as possible, from local suppliers.
3.13	S. Williams o.b.o BVI	X Emailed registration form, 19 November 2019	BVI Consulting Engineers was involved with the previous phase 1 of this project.	Thank you for your comment
3.14	B. Harley, o.b.o B&W Instrumentation and electrical	X Email, 22 November 2019	Thank you for the comprehensive report on the project and indeed the existing environment. B&W were involved extensively on the concentrator project particularly when building the overhead line from Aggeneys to site regarding the line route and the process and procedures we had to adhere to. Both B&W and the client team I believe achieved the goals set in maintaining and preserving the environment ensuring absolute minimum damage and relocation. B&W will be attending the public meeting at Pofadder on the 4th of December 2019.	Thank you for your comment.
3.15	N. Bruhns, o.b.o FCS	X Emailed registration form, 26 November 2019	We are Suppliers, based in Upington in the Northern Cape, and would be so glad if you list us as an interested party for the Gamsberg Smelter and Bulk Water Pipeline Project. Please be so kind and keep us updated.	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.

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3.16	Harry Ruiters	X	Emailed registration form, 15 January 2019	Please find attached the registration form as received to get more information regarding the Gamsberg Smelter and it's process. I wish to also know more about the following: Which vacancies will be available at the Gamsberg Smelter including job titles? What are the requirements and training needs for the construction phase?	Thank you for your comment . There is a process in place for businesses to register for providing services to Black Mountain Mining (Pty) Ltd. Black Mountain Mining (Pty) Ltd is committed and will continue to encourage our business partners to procure material or services as far as possible from our local suppliers. The list of vacancies and specific requirements would be finalised at a later stage.
3.17	Blaize Magee	X	Emailed, 29 January 2019	We provided the plant substation 11kV and 66kV protective relaying and SCADA integration for the Black Mountain project. We would like to be of assistance on the new smelter. Would you let me know who we should talk to in this regard ?	Thank you for your comment . There is a process in place for businesses to register for providing services to Black Mountain Mining (Pty) Ltd. Black Mountain Mining (Pty) Ltd is committed and will continue to encourage our business partners to procure material or services as far as possible from our local suppliers. The list of vacancies and specific requirements would be finalised at a later stage.
4	I&AP registration related comments and responses				
4.1	M. Letsoso, o.b.o NCPG	X	Email, 16 October 2019	New I&AP contact details provided for NCPG	Thank you for the update. The database has been updated accordingly.
4.2	A. Van Schalkwyk o.b.o Waltons	X	Email, 16 October 2019	Please remove me from this mailing communication, thanks.	Thank you for the update. The database has been updated accordingly.
4.3	L. Ntobela o.b.o NCPG	X	Email,	New I&AP contact details provided for NCPG Renee Williams and Lucretia van der Westhuizen	Thank you for the update. The database has been updated accordingly.

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			16 October 2019		
4.4	F. Scott o.b.o Osborn Engineered Products SA	X	Email, 16 October 2019.	Osborn Engineered Products will be interested in participating on this Project, I will submit the document back to you.	Comment noted. No further correspondence received to date.
4.5	A. Costa o.b.o the IDC	X	Email, 16 October 2019	I don't require communications on this matter, thank you.	Thank you for the update. The database has been updated accordingly.
4.6	Dr L. Kirsten o.b.o SMEC	X	Email, 16 October 2019	We are not an interested or party in relation to this notice. It should therefore be ok if you removed me from the circulation list.	Thank you for the update. The database has been updated accordingly.
4.7	I. Coetzee o.b.o Radio NFM	X	Emailed registration form, 16 October 2019	"Request I&AP registration."	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
4.8	A. Duff o.b.o MV Switchgear	X	Email, 17 October 2019	We would appreciate receiving any further applicable information.	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
4.9	L. Smith o.b.o NCPG	X	Email, 18 October 2019	1. Ms D Stander - Environmental Management 2. Dr L Mabona - Infrastructure Management	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.

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			Please receive this communicate for your attention and noting. The HOD requests that this office be kept updated in this regard.		
4.10	JA. Kruger	X	Email, 18 October 2019	“Additional I&AP contact details provided for Cassie Kruger.”	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
4.11	K.A. Fortuin,	X	Email, Emailed registration form, 18 October 2019	How many I&AP participants do you have, and can anyone join? Also, when will the first meeting be held and where? Lastly, is there a formal process of research being done on this project?	There are currently just under 1 050 participants registered on the stakeholder database. Initial public meetings were held from 2 to 5 December 2019 which all registered I&AP’s were informed of. Further meetings will be held later in the process.
4.12	M. Swarts o.b.o Labex	X	Emailed registration form, 18 October 2019	Suppliers of lab equipment and chemicals	Thank you for your comment. I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
4.13	M. Ferreira o.b.o Quality Tube Services	X	Emailed registration form, 18 October 2019	We are very interested in the project. Supply of steel pipe and related fittings as well as rubber lining and HDPE lining and HDPE pipes and fittings.	Thank you for your comment. I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
4.14	R. Stuurman o.b.o Desert Road Inn	X	Emailed registration form,	As a small business owner, my question is whether they will give us businesses in Khâi-Ma opportunity to benefit from the project? On the original project there were only promises.	There is a process in place for businesses to register for providing services to Black Mountain Mining (Pty) Ltd. Black Mountain Mining (Pty) Ltd is committed & will continue to encourage our

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			18 October 2019		business partners to procure material or services as far as possible from our local suppliers. Black Mountain Mining (Pty) Ltd will continue to encourage their business partners to procure materials and services as far as possible from local enterprises/suppliers or service providers.
4.15	C. Vele o.b.o Industrial Analytical	X	Emailed registration form, 18 October 2019	To be the supplier of certified reference materials, high purity compounds, chemicals and claissé fusion equipment for sample preparation.	Thank you for your comment. I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
4.16	JA. Wessels	X	Emailed registration form, 8 November 2019	May I please be given opportunity to comment on the EIA documentation/reports.	All registered I&APs will be afforded the opportunity to comment on the scoping report and EIA report when these reports are distributed for public review. I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
4.17	D. McIvor o.b.o Baltimo Engineering Agency	X	Email, 19 November 2019	Please include us on correspondence relating to this project.	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
4.18	H. Yingsheng, o.b.o ENFI	X	Email, 20 November 2019	Sorry for the late reply due to annual leave. I copied in Maggie. She will contact you.	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project. As of this time, no further comment has been received from the I&AP.
4.19	M. Lee, o.b.o ENFI	X	Email,	Thank you very much for your information. Please feel free to let us know if there's any updated or request.	Thank you for your comment. I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.

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			21 November 2019		
4.20	J. Whon	X	Email, 25 November 2019	As discussed over the phone, could you please send me more info regarding this EIA?	I&AP has been registered on the I&AP database to receive any and all current and future public communications regarding the project. Draft Scoping Report was emailed for comment on 29 January 2020.
4.21	R. Kamish. O.b.o Mainstream Renewable Power	X	Email, 10 January 2020	Could you kindly register myself as an Interested and Affected Party?	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
5	Comments received during the Scoping Phase				
5.1	Dr Philip Desmet	X	Emailed comments, 28 February 2020	Thank you for the draft scoping report. I am mostly happy with the content of the report in terms of project description and impact identification. I do feel, however, that the document does downplay somewhat the scale of the project particularly the scale of the air quality impacts. It should be recognised that this is a sulphuric acid mine that produces zinc as a by-product. Even if the smelting process is 95% efficient at capturing emission that still leaves approximately 22 500 tpa. of SO ₂ that escapes into the local environment. I think the scoping report could have done a better job at discussing the quantum of emissions impacts given that there is detailed knowledge of the input chemistry and there is a detailed breakdown of the smelter	The design of the Acid plant will meet the requirements of the IFC Performance standards where a maximum of 1.5 kg of SO ₂ is emitted per tonne of Sulphuric Acid. Cognisance is taken that even at this design and operational requirement the volume of emissions equates to a maximum of 817.5 tonnes of sulphur dioxide emitted annually.” The impact of emissions of the Acid plant is potentially the single most significant impact in conjunction with storing and transporting acid. The models for emission was run against the legal limits as per the Air Quality Act. Cognisance is taken that this approach is potentially not sufficient to address the biodiversity impacts and your advice to rather utilise the 5% of background approach is appreciated. As part of the further studies the modelling will be recalculated based on the 5% background to

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			<p>outputs. I hope that greater detail on emissions will be provided in the final scoping report.</p> <p>On page 148 the draft scoping report already attempts to downplay the significance of the smelter emissions. Given that nothing is presented in the draft document quantifying the chemistry, quantity or extent of emissions there is no factual basis for making these assumptions. We need to bare in mind that this smelter will be the largest zinc concentrate smelter in the world by volume of output and it is processing an ore with an exceptionally high sulphur content. A quick scan of the scientific literature on smelter emission impacts on biodiversity paint a very different picture to your comments in the draft scoping report:</p> <ol style="list-style-type: none"> 1. http://repository.unam.edu.na/bitstream/handle/11070/361/Nunes2007.pdf?sequence=2&isAllowed=y Here in a savanna system they are picking up significant plant community impacts 1km from the smelter. 2. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1442-9993.2000.tb00071.x A quote from the abstract: "...Species richness in high SO2 plots (up to 5 km from the source) was approximately half that of control plots..." 3. https://www.sciencedirect.com/science/article/abs/pii/S006320797000293 4. https://www.nrcresearchpress.com/doi/abs/10.1139/e98-001#.Xj00xy17GAw A quote from the abstract on this one: 	<p>determine the impact on succulent species and determine the extent of the potential plume.</p> <p>To address the cumulative impacts of the various planned developments by Black Mountain Mining (Pty) Ltd a strategic biodiversity roadmap will be developed to ensure that the integrity of the current offsets is not destroyed.</p>

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			<p>“...The maximum radius of contamination varies among the major smelter metals, ranging from 70 km for Cd to 104 km for As....”</p> <p>In terms of any air quality/emission studies that are conducted for the final scoping report I would like to request that raw model outputs are provided (i.e. continuous value surfaces with emissions extrapolated to limit of detection) and not summarised isobar maps indicating particular significant thresholds. Typically, threshold maps use indicators set for human receptors which may be legislated or recommended in local or international air quality standards. A unique attribute of the local landscape is the incredible small size of many of the species of conservation concern. Some species are barely larger than a pinhead. In this context, thresholds acceptable for human health and safety are not necessarily acceptable for biodiversity health and safety. In the absence of any quantitative research to the contrary I would recommend using an emissions threshold of 5% of background rate for defining the default threshold for impact significance.</p> <p>Given what I read in the literature, it is highly likely that this threshold even with mitigation will extend far beyond the dust impact quantified for the mine EIA. How then will a biodiversity offset be calculated given (1) that existing offset and set aside sites will be impacted by emissions; (2) there will be a cumulative impact of new mining (Swartberg), prospecting and the smelter; and, (3) given points 1 and 2</p>	

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				that impacted biodiversity features will now become more un-offsettable meaning that the “no net loss” goal of Vedanta will be pushed even further from their grasp?	
5.2	John Geeringh, Senior Consultant Environmental Management, Eskom Transmission Division: Land & Rights	X	By email, 3 February 2020	<p>Eskom requirements for work in or near Eskom servitudes.</p> <ol style="list-style-type: none"> 1. Eskom’s rights and services must be acknowledged and respected at all times. 2. Eskom shall at all times retain unobstructed access to and egress from its servitudes. 3. Any cost incurred by Eskom as a result of non-compliance to any relevant environmental legislation will be charged to the developer. 4. If Eskom has to incur any expenditure in order to comply with statutory clearances or other regulations as a result of the developer’s activities or because of the presence of his equipment or installation within the servitude restriction area, the developer shall pay such costs to Eskom on demand. 5. The use of explosives of any type within 500 metres of Eskom’s services shall only occur with Eskom’s previous written permission. If such permission is granted the developer must give at least fourteen working days prior notice of the commencement of blasting. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued in terms of the blasting process. It is advisable to make application separately in this regard. 6. Changes in ground level may not infringe statutory ground to conductor clearances or statutory visibility clearances. 	Thank you for the input. Black Mountain Mining (Pty) Ltd is aware of Eskom’s requirements. Relevant mitigation measures will be included in the EMPr.

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			<p>After any changes in ground level, the surface shall be rehabilitated and stabilised so as to prevent erosion. The measures taken shall be to Eskom's satisfaction.</p> <p>7. Eskom shall not be liable for the death of or injury to any person or for the loss of or damage to any property whether as a result of the encroachment or of the use of the servitude area by the developer, his/her agent, contractors, employees, successors in title, and assignees. The developer indemnifies Eskom against loss, claims or damages including claims pertaining to consequential damages by third parties and whether as a result of damage to or interruption of or interference with Eskom's services or apparatus or otherwise. Eskom will not be held responsible for damage to the developer's equipment.</p> <p>8. No mechanical equipment, including mechanical excavators or high lifting machinery, shall be used in the vicinity of Eskom's apparatus and/or services, without prior written permission having been granted by Eskom. If such permission is granted the developer must give at least seven working days' notice prior to the commencement of work. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued by the relevant Eskom Manager</p> <p>Note: Where an electrical outage is required, at least fourteen work days are required to arrange it.</p> <p>9. Eskom's rights and duties in the servitude shall be accepted as having prior right at all times and shall not be obstructed or interfered with.</p>	

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			<p>10. Under no circumstances shall rubble, earth or other material be dumped within the servitude restriction area. The developer shall maintain the area concerned to Eskom's satisfaction. The developer shall be liable to Eskom for the cost of any remedial action which has to be carried out by Eskom.</p> <p>11. The clearances between Eskom's live electrical equipment and the proposed construction work shall be observed as stipulated by Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).</p> <p>12. Equipment shall be regarded electrically live and therefore dangerous at all times.</p> <p>13. In spite of the restrictions stipulated by Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), as an additional safety precaution, Eskom will not approve the erection of houses, or structures occupied or frequented by human beings, under the power lines or within the servitude restriction area.</p> <p>14. Eskom may stipulate any additional requirements to highlight any possible exposure to Customers or Public to coming into contact or be exposed to any dangers of Eskom plant.</p> <p>15. It is required of the developer to familiarise himself with all safety hazards related to Electrical plant.</p> <p>16. Any third party servitudes encroaching on Eskom servitudes shall be registered against Eskom's title deed at the developer's own cost. If such a servitude is brought into</p>	

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				<p>being, its existence should be endorsed on the Eskom servitude deed concerned, while the third party's servitude deed must also include the rights of the affected Eskom servitude.</p>	
5.3	Cliffy o.b.o. Upington Container Park	X	Email, 3 February 2020	<p>We (Upington Container Park) specialise in converting containers into Offices, Storages and Spaza Shops. These are just a few examples of what we are able to provide to the public.</p> <p>We came across the Gamsberg Smeltery Project, and it seems they will be needing offices and libraries.</p> <p>Will you be able to help me with the specification on these above mention, because we would like to help you by submitting a quote as soon as possible.</p>	<p>Thank you for your interest in providing services to the project. I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.</p>
5.4	Robin Clarke, B.Sc (Mech Eng) SAIMEchE, Executive Director Hot Dip Galvanizers Association Southern Africa	X	Email, 5 February 2020	<p>The Hot Dip Galvanizers Association of Southern Africa represents the interests of 20 Galvanizers situated in Southern Africa. These Galvanizing companies probably represent about 80% of the value of galvanizing in the region and possibly approximately 90% of the weight of steel that is galvanized.</p> <p>Since galvanizing technologies represents over 60% of all zinc consumption there is therefore strong congruence between the mining and production of zinc and our industry. Vedanta Resources is an Associate member of our organization and has a vested interest in our efforts to stimulated market conditions for the galvanizing industry.</p> <p>The news of the zinc smelter/ processing plant is therefore excellent news.</p>	<p>Thank you for your input to the process. I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.</p>

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				<p>It is, we believe, imperative that the technical specification related to the corrosion protection for the steelwork of the new smelter be that of hot dip galvanized to ISO 1461:2011 standards and that fabrication of this steelwork as well as the galvanizing thereof be performed locally in S.A.</p> <p>The following commercial benefits and positive social responsibility spin-offs for both parties are listed:</p> <ul style="list-style-type: none"> • local Increase in Zinc sales for Vedanta Resources related to the project - short term. • Stimulation of the S.A. galvanizing industry, presently operating with at least 30% spare capacity – creates a platform for longer term market and stimulation for zinc sales. • Positive social impact resultant from localizing of fabrication and galvanizing of steelworks through job creation at both fabricators and galvanizers. <p>Accountability for project deliverables is localized and simplified.</p>	
5.5	Karen Low, Project Development Manager, juwi Renewable Energies (Pty) Ltd .	X	Email, 21 February 2020	Please can you register me as an I&AP for the Gamsberg Smelter EIA (SLR project reference: 720.22013.00002).	I&AP has been registered on the I&AP database to receive any and all future public communications regarding the project.
5.6	Leonardo Steenkamp	X	Email, 3 February 2020	Thank you for the synopsis. I humbly request a full copy of the Scoping Report. This will assist in affording us an opportunity to peruse the full impact and to exploit	Mr Steenkamp was sent an electronic copy of the Draft Scoping Report and was also referred to the SLR Project website on 4 February 2020.

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			opportunities for the community and going forward how do we protect the environment as well.		
5.7	Sasha McPherson, Business Development, Webber Wentzel	X	Email, 3 February 2020	Please amend the key email contact at Webber Wentzel from Stuart Boyd (COO) to Sean Testa (Senior Business Development Manager (Mining and Energy))? This will enable us to review and assess your emails and then liaise with the most appropriate legal experts more efficiently.	Contact has been updated in the I&AP database.
5.8	Gerhard Visser, Landowner	X	Emailed letter, 9 March 2020	I oppose the approval of the proposed smelter, namely Gamsberg. Firstly, there is not enough water available in the Orange River for the proposed 10 ML additional water the smelter will require. The existing Water Use Licence allowing 44 ML (Sedibeng) will therefore need to be increased. This is against the background of the Orange River which has run dry on two occasions in the last ten years with agriculture (primary work provider and food provider) under pressure due to water restrictions.	Thank you for your comments. The volume of water to be abstracted to supply the Smelter is within the already authorised abstraction volumes which are included and allocated in the DWS reserve determination for the Orange River. No additional water volumes are being requested in this application. Gamsberg will operate the current activities and the Smelter within the approved water allocation.
				Secondly farmers around Gamsberg Mine have an agreement with Vedanta – which is recorded in the EMPr – to provide them and all farmers with water should the groundwater in the area be affected as a consequence of open cast mining. It was clear from the Background Information Document of 4 December 2019 that the mine did not account for this potential requirement.	Black Mountain Mining (Pty) Ltd is aware of the commitment in the mine’s EMPr and Farmer’s Impact Agreement to provide farmers with an alternative water source should groundwater resources be impacted by mining. The Background Information Document is a summary document which is unable to reflect the full complexities of a project. The Smelter EIA water balance will include consideration of the potential volumes of water for farmers covered by the agreement if their resource is impacted by mining.

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				<p>Current and historic groundwater monitoring conducted since 2015 does not reflect any impacts on groundwater levels and in the quality of farms production and monitoring boreholes. Monitoring of these boreholes as well as the BMM and Gamsberg Zinc Mine groundwater monitoring programme will continue for the life of mine. Groundwater monitoring closer to the BMM operations has not indicated any impacts to date on groundwater quantities. Monitoring boreholes close to operations would serve as early warning indicators to impacts on groundwater levels (quantity) and the quality of production boreholes that are located further away on farmers properties. Should impacts on groundwater levels (quantity) and quality at monitoring boreholes in the immediate surroundings of operations be recorded, Black Mountain Mining (Pty) Ltd will investigate and commence with contingency plans to supply water as and when farmers production boreholes are impacted.</p>
			<p>With the existing shortages for electricity provision, the power required for the proposed smelter is not available. Renewable energy projects which are referred to as alternatives, do not provide more than 5% - 10% of the current national energy generation capacity. The increased roll out of renewable energy projects in the Gamsberg area for the purpose of providing the smelter with electricity, has the consequence that further destruction of the base in the environment takes place.</p>	<p>The impact of power supply and the potential new renewable energy projects in the area will be included in the cumulative impact assessment in the EIA Report.</p> <p>The Project team is also investigating partnerships with regional approved alternative power producers to expand the capacity for sole supply of power to the project and reduce reliance on ESKOM for power supply.</p>
			<p>The pollution impact of the smelter is unacceptable in a region where organic, extensive production of meat is the only feasible farming practice. This low rainfall region has</p>	<p>An Air Quality Impact Assessment (AQIA) is being undertaken which will model the dispersion of pollutants from the smelter. This will then be assessed against baseline conditions, South</p>

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			<p>unique pastures, which gives lamb meat a very specific taste and smell. New generation consumers place an extremely high premium on organically produced meat products as well as the unique meat taste due to the area. With the inevitable polluting of the area and pastures by the proposed smelter the farmers will lose these marketing and premium advantages. Even for future generations. Farmers bordering Gamsberg Mine have since 2016 been bringing to Vedanta's attention the fact that dust pollution in the area is unacceptably high. This dust spreads up to a radius of 30 km around the mine. Up to now, 4 years later, Vedanta still has no solution for it. This again underlines the fact that our businesses will be negatively affected. Farms which will be affected first are: Namies 146/0/1, Namies Suid 212/0, Rozynbosch 41/0/1/2, Haramoep 53/0/1, Koeris 54/0/1/2/3/4, Aroams 57/0/1/2/3/4/5, Koupsleegte 58/0/1/2/3, Achab 59/0, gams 60/0/1/2, Bloemhoek 61/0/1, Zuurwater 62/0/1/2/3/4/5/6, Kykgat 87/0/1/2, Vogelstruishoek 88/0/1, Wolfkop and Kalkvlei.</p>	<p>African and international standards, and the resultant impacts assessed. The secondary impact on animals that graze these areas will be included.</p> <p>Dust monitoring around the Gamsberg Zinc Mine operations indicates that the dust liberated by blasting and dumping activities at the waste rock dump in particular does not travel as far as the neighbouring properties (fallout dust). From the onsite electronic sampling network the PM10 and smaller fraction is measured to be within the national limits as per the National Air Quality Act.</p>
			<p>Sulphur Dioxide, cadmium, copper, arsenic, cobalt etc. are very detrimental elements to the environment which the smelter will pollute. The installation of a sulphur dioxide scrubber system makes the operation of the smelter complicated. A sulphuric acid plant requires a specific volume of gas at a specific temperature and a specific dust loading. If these criteria are not met, the pollution of the area is increased dramatically. Whilst the focus is on zinc production and not sulphuric acid, the pollution on the environment is a given. What will happen later when the</p>	<p>These potential pollutants will be included in the Air Quality Impact Assessment modelling.</p> <p>Technologies included in the smelter design will limit the emissions from the smelter and other stacks at the plant to reduce the impact of the gaseous emissions from the plant on the surrounding environment. Start-up of the roaster section will entail the heating of the roasters by utilising diesel to a temperature in excess of 900°C before concentrate is entered into the roaster. This will maximise the collection of sulphur dioxide gas thus removing up to 99% of the gas from the stack.</p>

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			<p>market for this large volume of sulphuric acid, which is produced as a by-product, is oversupplied?</p>	<p>The capturing of sulphur dioxide gas is important to the process as this will be the basis for the sulphuric acid required in the process. Excess acid is a product and will be sold into the market and the establishment of industries such as a fertiliser plant is being investigated to allow creation of third party industries in South Africa as additional benefits from the smelter.</p> <p>Black Mountain Mining (Pty) Ltd is currently engaging with government at a national and provincial level to investigate these alternative consumers for the sulphuric acid.</p>
			<p>From the Background Information Document of 4 December 2019, about the proposed smelter project, it is indicated that the existing Tailings Storage Facility will be used, when the proposed smelter is in operation. The existing tailings storage facility is already too small. It already has, to an extent over flowed and the discharged material ended up in the environment. How much more if the smelter is in operation? Environmental and underground water pollution is then unavoidable.</p>	<p>A groundwater study will be undertaken to model potential contamination plumes associated with the smelter development and the disposal of jarofix waste. Alternative disposal sites for the disposal of the jarofix have been assessed as part of the Scoping phase. At this stage it is likely that the jarofix will be disposed of in a separate waste disposal facility to the existing tailings storage facility.</p> <p>Due to the classification of the Jarofix an impermeable liner is being designed as per the National Waste Act and associated Regulations to prevent seepage from the Jarofix to the environment.</p> <p>The current tailings storage facility is constructed to cater for the first phase of the Gamsberg Zinc Mine where production is limited to 4 million tons of ore per annum. The current size of the TSF is just 50% of the approved size.</p> <p>The overflow of the return water dam occurred during commissioning of the plant when an excess of water was present in the water circuit. The water balance for the plant has subsequently been restored and with approval from DWS a</p>

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				series of evaporative cannons was acquired to use as an emergency measure to evaporate water.
			Vedanta's record for environmental pollution is doubtful, for example look at the class action by 2000 Zambian citizens against Vedanta to the pollution of their environment by The Vedanta Konkola Copper Mine in Zambia.	As a global company Vedanta is committed to the protection of the environment. In this specific case we are dealing with this problem in collaboration with the Government of Zambia and the surrounding communities. Vedanta Zinc International have also been tasked to assist with addressing the current situation in Zambia and have established a task team to assist at KCM
			<p>With Environmental Impact Studies it is non-negotiable that a baseline value of all the potential polluting substances for at least 24 months be carried out before the construction of the proposed Smelter takes place. These measurements must also be integrated with the existing monitoring program of the mine and also quarterly with the Environmental Liaison Committee meetings report.</p> <p>As far as emissions monitoring is concerned (Emissions determination techniques) at the proposed Smelter project in order to monitor air pollution at the smelter only the "Direct Measurement Technique" must be used to measure true pollution concentrations.</p>	<p>During the construction of the smelter a monitoring station to establish a baseline for ambient SO₂ and NO_x will be established. This ambient monitoring station will then be onsite for the duration of the operation of the smelter. This monitoring will be used to establish what the potential impact is on vegetation</p> <p>In stack inline monitoring probes will also be installed to determine the point source emissions from the stack. This will continuously monitor the levels of SO₂ and NO_x and other gas emissions that are emitted from the various stacks at the smelter.</p>
			Finally, it is once again non-negotiable, should the proposed smelter project continue, that a proper impact management agreement between Vedanta and all affected parties is agreed upon and that Vedanta will ensure that	An existing agreement is in place regarding the potential impacts associated with the opencast mining activities at Gamsberg Zinc Mine. Gamsberg Zinc Mine is willing to revisit the agreement with the farmers if the studies for the Smelter indicate that the smelter will impact on the neighbouring farms.

#	I&AP Details (X = contact has been added to stakeholder database)	Date and mode of communication	Issue raised	Response (as amended for the purposes of the scoping report)
			this impact management agreement is recorded in the EMPr.	