

MEETING NOTES

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Job Title	Proposed Installation of Sulphur Dioxide Abatement Equipment at Polokwane Smelter
Project Number	31101
Date	19 May 2017
Time	10:00 – 11:00
Venue	Getaway Gateway Polokwane Place
Subject	Proposed Installation of Sulphur Dioxide Abatement Equipment at Polokwane Smelter – Limpopo Consumer Coalition Meeting
Client	Anglo American Platinum Limited
Present	See Attached Attendance Register (Appendix A)
Apologies	None
Distribution	As per the Attendance Register

ACTION

1.0 WELCOME AND INTRODUCTIONS

1.1 Anri Scheepers thanked the Limpopo Consumer Coalition (LCC) for the opportunity to meet with them to discuss the Proposed Installation of Sulphur Dioxide (SO₂) Abatement Equipment at Polokwane Smelter.

1.2 A round of introductions was done, including:

- LCC – Mpedi Maluleke
- Anglo American Platinum Limited – Pierre Malan, Nkhensani Baloyi and Adriaan Venter
- WSP Environmental (Pty) Ltd (WSP) – Anri Scheepers

1.3 Anri Scheepers mentioned that the presentation (**Appendix B**) would be attached to the minutes together with the attendance register (**Appendix A**).

2.0 PROJECT BACKGROUND

2.1 Anglo American Platinum Limited (Anglo) owns and operates the Polokwane Smelter, which is located off the R37 to Burgersfort on Portions 6 and 49 of the farm Palmietfontein 24KS. The Polokwane Smelter is an existing metallurgical industrial furnace where sulphide ores are smelted.

2.2 The National Environmental Management Air Quality Act (No. 39 of 2004) (NEM:AQA) requires that furnaces at metallurgical industries be operated with efficient SO₂ abatement systems by 2015, however Polokwane Smelter has been given an extension until 2020. In order to comply with new South African legislation, and associated more stringent emission standards, an SO₂ abatement system must be installed at the Polokwane Smelter.

2.3 The proposed strategy to reduce SO₂ to achieve the Minimum Emission Standards (MES) is the installation of a Wet Gas Sulphuric Acid (WSA) Plant that will convert the SO₂ contained in the off-gas into commercial-grade concentrated sulphuric acid (H₂SO₄). The exhaust from the WSA plant (containing reduced SO₂ concentrations) will be vented into the atmosphere, and the commercial grade sulphuric acid will be temporarily stored before being despatched into the commercial market.

ACTION

3.0 LIMPOPO CONSUMER COALITION

3.1 MM explained that the LCC is a grass root consumer protection group. He indicated that they operate in terms of the Consumer Protection Act and is not politically motivated.

3.2 The LCC is interested in the project to ensure consumer protection.

4.0 CLIMATE CHANGE

4.1 MM noted that he is concerned about climate change.

4.2 It was noted that a Climate Change Assessment is being undertaken and will be included in the Environmental Impact Assessment Report (EIAR).

5.0 WATER QUALITY

5.1 MM noted that the community is concerned that the water quality is being affected by industrial operations.

5.2 Polokwane Smelter undertakes water quality monitoring and it has been agreed that for the SO₂ Abatement Plant there will be no water abstracted from boreholes. In addition the SO₂ Abatement Plant will be located within the dirty stormwater management area which reports to the existing PCD.

6.0 INITIAL PROPOSED CONSTRUCTION ACCESS ROAD

6.1 MM enquired why the initial access route alternative was abandoned for the route in close proximity to the wetland.

6.2 AS explained that the route is not feasible as it will not be feasible to reroute existing pipelines in the proposed area.

7.0 DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

7.1 It was agreed that a cd containing the Draft EIAR will be delivered to MM once available.

WSP

Appendix A – Attendance Register

Appendix B - Presentation

Proposed Installation of Sulphur Dioxide Abatement Equipment at Polokwane Smelter

Anglo American Platinum Limited



19 May 2017
Limpopo Consumer Coalition

AGENDA

- 1. Welcome and Introduction**
- 2. Role Players**
- 3. Project Location**
- 4. Project Background**
- 5. Project Description**
- 6. Alternatives**
- 7. Legislative Requirements**
- 8. Specialist Studies**
- 9. Comments Received**
- 10. Proposed Schedule**
- 11. Questions and Discussions**

WELCOME AND INTRODUCTION

Competent Authority

Limpopo Department: Economic Development, Environment and Tourism – Environmental Authorisation (EA)

Capricorn District Municipality – Atmospheric Emissions Licence (AEL)

Commenting Authorities

Department of Water and Sanitation

Applicant

Anglo American Platinum Limited

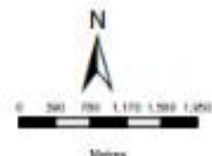
Environmental Assessment Practitioner

WSP | Parsons Brinckerhoff, Environment & Energy, Africa

**ANGLO AMERICAN
PLATINUM LIMITED**
POLOKWANE SMELTER
LOCATION

Legend

 Polokwane Smelter



DATA SOURCE: AEC ON 10 2 02

PROJECTION: WGS 1984 UTM ZONE 35N

PROJECT TITLE: PROPOSED INSTALLATION OF SLOSHUR
DEVICE ABATEMENT EQUIPMENT AT ANGLO AMERICAN
PLATINUM LIMITED, POLOKWANE SMELTER

PROJECT NO: 01102

SCALE: 1:50,000 AT A4

DATE: 1 OCTOBER 2016

DRAWN BY: ANRI SCHROEDER

REVIEWED BY: SIGEL SEED



WSP | PARSONS BRINCKERHOFF

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R37

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Image © 2016 DigitalGlobe

Google Earth

Tour Guide



2001

Imagery Date: 9/9/2016 24°01'46.08" S 29°28'07.22" E elev 1420 m eye alt 3.75 km



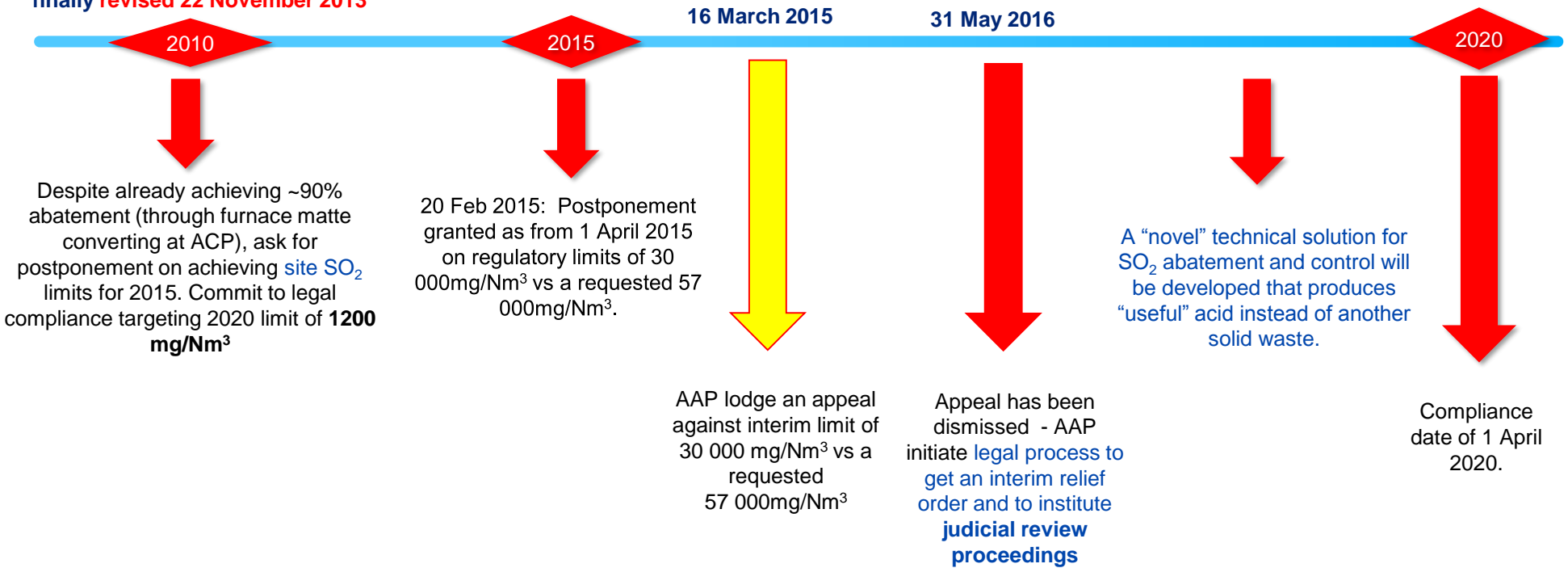
PROJECT BACKGROUND

SO₂ postponement & related appeal

Government notice of Minimum Emission Standards (MES) are published in the Government Gazette: 1 April 2010, then amended for Parliamentary Portfolio Review, and finally revised 22 November 2013

MES: SO₂ for existing facility: 3500mg/Nm³

MES: SO₂ for new/all facility: 1200mg/Nm³



SO ₂ Compliance requirements	Polokwane Smelter
Pre-2015 AEL condition	2500 mg/Nm ³
1 April 2015 MES requirement	3500 mg/Nm ³
1 April 2015 – 31 March 2020 postponement limit	30 000 mg/Nm ³ (requested 57 000 mg/Nm ³)
1 April 2020 MES requirement (require abatement)	1200 mg/Nm ³



PROJECT DESCRIPTION

- Electric Furnace Primary Gas Cleaning (Existing)
- Secondary Gas Cleaning (new additional cleaning)
- WSA Acid Plant
- Effluent Treatment Plant (401m³/day)
- Acid Concentrating Plant
- Acid Plant Cooling Water
- Dangerous Goods Storage and Handling
 - Acid – 1 200m³
 - LPG – 68m³
- Water Usage and Storage
 - Required - 869m³/day
 - Storage – 3 338m³
- Roads



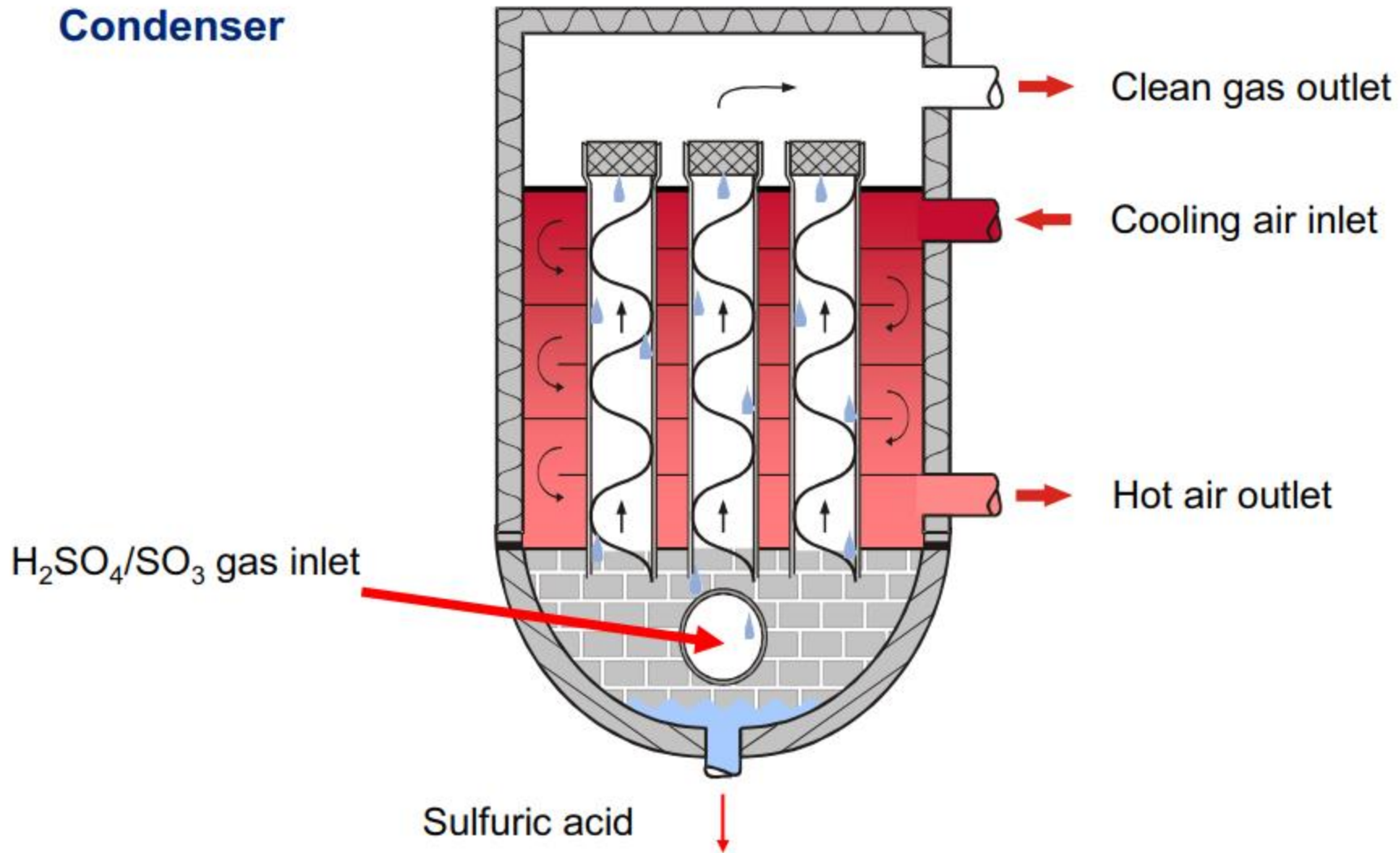
ALTERNATIVES

- **Location – None**
- **Type of activity – None**
- **Design or Layout of Activity**
 - Contractor facilities
 - Operational
 - Construction Access
- **Technology**
- **Operational Aspects – None**
- **No-Go**
 - Legal non-compliance



Process / Metallurgy

Condenser





Process / Metallurgy



ter



LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

- **EIA Regulations (GNR 982)**
- **Listing Notice 1 (GNR 983)**
 - Activity 12 – Construction access road within 32m of watercourse
 - Activity 24 - The development of a road wider than 8 metres
 - Activity 27 – Clearance of construction area in excess of 1 ha
 - Activity 34 – Amendment of AEL

LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

→ Listing Notice 2 (GNR 984)

- Activity 4 – The storage of acid in excess of 500 cubic metres of dangerous goods

→ Scoping and Environmental Impact Reporting Process

LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

→ Listing Notice 3 (GNR 985)

- Activity 2 – The development of reservoirs within 10km of nature reserves
- Activity 4 – The development of a road within 10km of nature reserves
- Activity 14 - Construction access road within 32m of watercourse and within 10km of nature reserves

LEGISLATIVE REQUIREMENTS

**National Environmental
Management Air Quality Act (No. 59
of 2008)**

Due to the changes in emissions (positive) from the Mortimer Smelter an amendment to the existing Atmospheric Emissions Licence as well as a revised emissions inventory will be required for the proposed project (once authorised)

In terms of section 21 of the NEM:AQA a list of scheduled processes were published in GNR893 (November 2013). Potential scheduled processes applicable are Subcategory 4.1 and Subcategory 4.16

LEGISLATIVE REQUIREMENTS

National Water Act (No. 36 of 1998)

- Polokwane Smelter Water Use Licence No: 27085555
- Provision for the abstraction of 218 m³/day from boreholes for watering of gardens and game watering purposes
- The Licence will have to be amended to enable Anglo to use the abstracted water for processing purposes
- Construction access road within 500m of wetland

SPECIALIST STUDIES

- **Air Quality Impact Assessment**
- **Noise Impact Assessment**
- **Biodiversity Assessment**
- **Wetland Assessment**
- **Climate Change Assessment**
- **Heritage Impact Assessment**
- **Major Hazard Assessment**
- **Social Impact Assessment**
- **Closure Assessment and Plan**

COMMENTS RECEIVED

Comment Raised	Response
Rationale for Choosing the Preferred Technology	
<p>LCC wish to raise objections regarding the profit-orientated preference of the technology chosen during the pre-feasibility study.</p> <p>We are adamant that the reason for choosing the WSA Plant is because of the 'lowest capital and operating cost that produces a saleable by-product'</p> <p>The CDMA process is not an option simply because 'Polokwane Smelters do not wish to produce gypsum'.</p> <p>Why the LUREC Plant which 'has the capability to process the highest inlet SO₂ concentration as compared to the other SO₂ abatement technologies' was not chosen and the reasons have not been included in the Scoping Report. Does it come with additional operational costs associated with the CDMA plant?</p>	<p>In order to meet compliance with the SO₂ minimum emission standard at Polokwane Smelter, the SO₂ abatement project team have considered the environmental cost-benefits of currently available technologies. These available technologies were investigated as part of the pre-feasibility study and the WSA plant has been chosen as the most suitable option. This is not a profit-generating project and is focused on SO₂ emissions compliance, hence the motivation for the technology with the lowest capital and operating cost solution.</p> <p>The operating costs of the dual alkali technology (CMDA), would be higher than the WSA technology and also introduce a potential risk of an additional gypsum by-product hence introducing another potential waste stream at the smelter. This was deemed undesirable when compared to a sulphuric acid by-product from the WSA, which can be reused productively. The Lurec technology in this case, was not chosen because it would need to be coupled with a Cansolv process and hence the project would need two new technologies instead of one. Another factor considered was that the Cansolv process is very energy intensive; from an energy efficiency and operating cost perspective, the Cansolv and Lurec technology was less favourable than the WSA option.</p> <p>If you would like further information on the technologies and process design information, please feel free to contact us.</p>

COMMENTS RECEIVED

Comment Raised	Response
Air Quality Narrative	
<p>The description of the development site reads thus:</p> <p>The air quality at the development site is currently being influenced by the existing sources at Polokwane Smelter, these include the drying process, smelting process and crushing process.</p> <p>It is further noted by the project document that:</p> <p>Silicon Smelters situated south-east of Pietersburg is situated close to Palmietfontein site. Visible dust fallout and particulates can be observed originating from this source.</p> <p>And elsewhere the project document it is noted that:</p> <p>Polokwane Smelters contains 68 megawatt furnace and produces a furnace gas with high dust content.</p> <p>Nevertheless the project info does a 360 turn and puts the pollution squarely on consumer-citizens provocatively.</p> <p>The project states that 'Contributions to SO₂, PM₁₀ and dust fall in the area may primarily be from the informal settlements.</p> <p>This air quality assessment narrative is hypocritical, contradictory and a profit-push tactic arguable to a point of 'no project'.</p> <p>However, we remain heartened by the knowledge that the 'AQIA report will include all methodology and technical information needed to support the findings, as well as focusing on the potential impact on sensitive receptors and mitigation measures to be taken to minimize the potential impacts'</p> <p>We are also convinced that the truth about 2% SO₂ emissions at Silicon is disturbingly economical.</p>	<p>Your concern regarding the statement in section 7.8 of the Draft Scoping Report is noted. This statement relates to the regional baseline environment and was extracted from documents relevant to the greater Polokwane Area (Draft Environmental Impact Report for the Proposed Smelter in the Pietersburg Area, dated August 2001) and not just Polokwane Smelters. This statement hence does not intend to deflect from Polokwane Smelter but to provide a background of all activities taking place in the area.</p> <p>The proposed Air Quality Impact Assessment will assess the existing operations (baseline) and the impact of the proposed SO₂ Abatement Plant. It is anticipated that there will be a positive air quality impact (reduced SO₂ emissions).</p>

COMMENTS RECEIVED

Comment Raised	Response
Archaeological Sites	
<p>It is typical capital behaviour to temper with archaeological sites for unsound reasons.</p> <p>Palmietfontein archaeological footprint close to Silicon would be inconsiderately affected as 'the offices, contractors area and a proposed new roads will have to be cleared.</p> <p>If the environmental health of Palmietfontein area is distressed or compromised then why destroy it further just to erect working quarters?</p>	<p>A Heritage Impact Assessment (HIA) will be undertaken in order to identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property. Once identified the significance of the cultural resources will be assessed in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value.</p> <p>The HIA will consist of the following phases:</p> <ul style="list-style-type: none"> • Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference. • Baseline assessment – establishment of a broad framework of the potential heritage of an area. • Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation. • Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted. • Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost. • Phase III management plan – for rare cases where sites are so important that development cannot be allowed.

COMMENTS RECEIVED

Comment Raised	Response
Biodiversity	
<p>We very much convinced that a new study may uncover evidence which will refute available data and expose grave 'environmental fatal flaws' that were not identified prior to the construction of the smelter. Nothing could have prohibited the construction of Silicon pre-1994.</p> <p>The proposed project plan must ensure the restoration of:</p> <p>a. The natural habitat of the grass owl and the African wild cat.</p> <p>b. A new audit of the flora and fauna found or erased by the construction of the smelter and also the foreseeable damage to be caused by the planned SO₂ project.</p> <p>c. Topographical damage making it possible for flooding and water runoff to Polokwane Game Reserve, which may be compromising the health and existence of flora and fauna including soil quality at the reserve and neighbouring villages.</p>	<p>A biodiversity assessment will be undertaken on areas that was not previously impacted on and where vegetation needs to be cleared. The biodiversity assessment will consist of a botanical and faunal survey.</p> <p>In addition a Freshwater Habitat Assessment will be undertaken.</p> <p>The objective of the Freshwater Habitat Impact Assessment is to identify the potential impacts of the proposed development on any of the identified freshwater habitats (wetland and riparian systems) present within the propose development footprint and within a 500m radius area of the development boundary. No delineation or functional assessments of any freshwater systems are required to be conducted as delineation and functional assessment has already been compiled for the smelter site.</p> <ul style="list-style-type: none"> • The proposed scope of work required for the assessment would be as follows: • Desktop review of existing information; • Verification of wetland and riparian habitats; • Identification of potential impact and associated mitigative measures; • Risk Matrix Assessment; and, • Reporting (including recommendations in terms of Section 21 of the National Water Act). <p>The specialist studies will however not assess impacts that has already occurred, and will only assess and identify mitigation measures for potential impacts associated with the SO₂ Abatement Plant.</p>

COMMENTS RECEIVED

Comment Raised	Response
Public Participation Process	
<p>Lastly, LCC is concerned that there is no document in Sepedi as 75% the residents at Ga-Maja/Ga-Chuene speak the language predominantly. The Wards 1&6 cllrs are not informed about the Silicon project and so are the communities they serve. We are in contact with most of the stakeholders identified on the stakeholder list who have never attended any meeting about this project.</p>	<p>We acknowledge that Sepedi is prevalent in the area, however due to the technical nature and size of the EIR the documentation will only be distributed in English.</p> <p>We would however like to follow an inclusive process and as such will ensure that a translator is present at the proposed public meeting in June 2017.</p> <p>WSP notified all stakeholder on the database via site notices, adverts, emails and telephonically of the SO₂ Abatement Plant project. However, should stakeholders have erroneously been excluded from the stakeholder database please provided us with the correct contact information to ensure that they are notified.</p> <p>No public meetings have been held to date. A public meeting is proposed for June 2017 to present the project and associated specialist studies. All registered stakeholders will be notified of the availability of the Draft EIAR and public meeting via site notices, email and telephonically.</p>

COMMENTS RECEIVED

Comment Raised	Response
Specialist Studies	
In conclusion, LCC is pleased to understand 'a number of environment impacts have been identified as requiring some more in-depth investigation and the identification of detailed mitigation measures'.	Thank you. Comment Noted.

PROJECT SCHEDULE

Task	Dates
Pre-Application Meeting - LEDET	27 January 2017
Submission of Application Form	11 February 2017
Stakeholder Review of Draft Scoping Report	11 February 2017 –13 March 2017 (30 days)
Authority Approval of Scoping Phase	17 May 2017
Stakeholder Review of Draft EIAR	9 June 2017 to 10 July 2017 (30 days)
Public Meeting	22 June 2017
Submission of AEL Application	10 August 2017
Authority Approval of EIAR	20 July 2017 to 14 November 2017 (107 days)
AEL Authority Review (Subsequent to receipt of Environmental Authorisation)	16 November 2017 to 7 January 2018 (30 days)

QUESTIONS AND DISCUSSIONS