

ENVIRONMENTAL IMPACT ASSESSMENT – EIA PHASE

PROPOSED ESTABLISHMENT OF THE PUMPED STORAGE SCHEME
AND ASSOCIATED INFRASTRUCTURE IN THE STEELPOORT AREA,
LIMPOPO AND MPUMALANGA PROVINCES

FINAL MINUTES OF THE FOCUS GROUP MEETING WITH STEELPOORT VILLAGES

**HELD ON
WEDNESDAY 16 MAY 2007
AT 13H30
AT
GA-MAPHOPHA COMMUNITY HALL, STEELPOORT**



ENQUIRIES

Public Participation Process

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YOUR COMMENTS

Your comments on this document would be greatly appreciated. In particular, we request you to verify that your comments during the meeting have been minuted correctly. Please address your written comments to Sibongile Gumbi at the address given above by not later than 4 July 2007. Please note however that the minutes are not verbatim.

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**MINUTES OF THE PRESENTATION
WEDNESDAY, 16 MAY 2007
GA-MAPHOPHA COMMUNITY HALL, STEELPOORT
13H30**

THE STRUCTURE OF THE MINUTES FOLLOWS THAT OF THE PRESENTATION

1. PURPOSE OF TODAY'S MEETING

- Provide Interested and Affected Parties (I&APs) and Key Stakeholders with information regarding the proposed Steelpoort Pumped-Storage Scheme (SPSS)
- Provide an overview of the Environmental Impact Assessment (EIA) & Public Participation Process (PPP) being followed for the proposed project
- Provide an opportunity for key stakeholders and I&APs to seek clarity and provide input into the project
- To record comments raised and include them in the final EIA Report
- Interaction with the project team

2. RATIONALE AND BACKGROUND TO THE PROPOSED PROJECT

- Eskom's electricity generation capacity expansion was based on national policy and informed by on-going strategic planning undertaken by National Department of Minerals and Energy (DME), the National Energy Regulator of South Africa (NERSA) and Eskom.
- Integrated Strategic Electricity Planning (ISEP) identified the need for increased peaking supply by about 2006/7 and base load by about 2010.
- One way of achieving this is via pumped storage technology. The Braamhoek Scheme in the Drakensberg is one such scheme.
- The function of a pumped storage scheme (PSS) is to supply power during the time of peak demands and to 'store' surplus power during off-peak periods, which will be utilized later

3. PUMPED STORAGE TECHNOLOGY

- Typical PSS scheme consists of:
- Upper and lower reservoir
- Underground powerhouse complex
- Associated waterways linking reservoirs; and
- Associated infrastructure roads, transmission lines, admin building, visitors centre and link yard

4. ENVIRONMENTAL STUDY REQUIREMENTS

Application has been made under the new EIA Regulations.

The primary triggers are (according to R386 and R387):

- The construction of facilities or infrastructure, including associated structures or infrastructure, for:
 - 1(a) the generation of electricity where –
 - the electricity output is 20 megawatts or more; or
 - the elements of the facility cover a combined area in excess of 1 hectare.
- 1(g) The use, recycling, handling, treatment, storage or final disposal of hazardous waste;
- 1(h) the manufacturing, storage or testing of explosives, including ammunition;
- 1(n) the transfer of 20 000 cubic metres or more water between water catchments or impoundments per day
- Any development activity, including associated structures and infrastructure, where the total area of the developed area is, or is intended to be, 20 hectares or more;
- The construction of a dam where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high water mark of the dam covers an area of 10 hectares or more;
- The construction of masts of any material or type of any height, including those used for telecommunication broadcasting and also transmission.

5. EIA PROCESS FOR THE PROJECT

- Phase 1: Environmental Scoping Study (ESS) including Screening Studies
- Phase 2: Environmental Impact Assessment (EIA)
- Phase 3: Environmental Management Plan (EMP)
- Public Participation Process – Ongoing throughout the EIA Process

6. WHY ARE ENVIRONMENTAL STUDIES NEEDED?

- Identify and assess potential environmental impacts (biophysical & social)
- Propose mitigation & management measures
- Authorization from the National Department of Environmental Affairs and Tourism (NDEAT)
- Inform project planning process

7. EIA PROCESS TO DATE

- EIA Process
- Application
- Environmental Scoping Study
- Plan of Study for EIA
- Environmental Impact Assessment
- Record of Decision

8. PUBLIC PARTICIPATION PROCESS

- What is PPP?
 - A tool to inform I&APs of a proposed project
 - A tool to help integrate the comments of the I&APs into the relevant phases of a proposed project
- What PPP is Not?
 - Not a Public Relations exercise
 - Not a means to satisfy grievances – rather to record comments

8.1 PUBLIC PARTICIPATION PROCESS TO DATE

- Approval of Final Scoping Report and Plan of Study for EIA
- Draft Environmental Impact Report for Public Review
- Focus Group Meetings
- Public Meetings
- Notify I&APs of Record of Decision

9. SITES INVESTIGATED

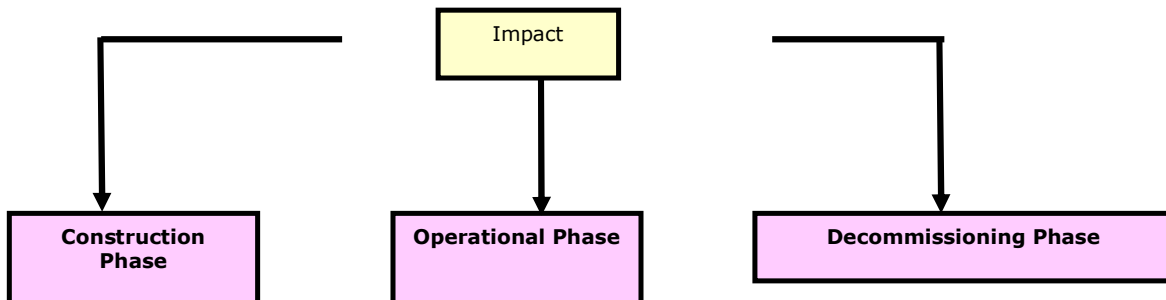
- Three alternative sites were investigated during the ESS
- The ESS has nominated a preferred site for further detailed investigation in the EIA phase

10. AIMS OF THE SCOPING PHASE

- Identified & evaluated potentially significant environmental impacts (both positive and negative impacts)
- Validate Environmental Screening Report
- Evaluate site alternatives
- Public Participation
 - Inform the public of the proposed project
 - Opportunity to raise concerns about and provide input into the project
- Nomination of a preferred site (Site A) for further investigation in the EIA phase (environmental, economic and technical issues account)
- Make recommendations regarding studies required within the detailed EIA

11. AIMS OF EIA PHASE

- Rating of Significant Impacts
- Public Participation
- EIA consider the impacts throughout the entire project life cycle e.g.



- Recommendations regarding mitigation and management of significant impacts
- Draft Environmental Management Plan

12. ASPECTS CONSIDERED IN THE EIA

- Biophysical Aspects
 - Geology
 - Soils and Agricultural potential
 - Geohydrology
 - Surface Water and drainage
 - Wetlands
 - Biodiversity
- Social Aspects
 - Archaeology and Heritage
 - Visual
 - Noise
 - Social
 - Traffic
 - Tourism

ASSESSMENT OF IMPACTS

- **GEOLOGY**
 - Very good rock conditions for underground works
 - Construction materials available within the dam basin
 - Clay material for the lower dam core is available in close proximity
 - Steelpoort Fault does not impact the site
 - No fatal flaws were discovered
 - Further investigations will be required

- **SOIL AND AGRICULTURAL POTENTIAL**

- Reservoir sites consist of shallow soils with deeper alluvial soils
- No areas with high agricultural potential occur within reservoir sites
- Additional Roads are already existing routes
- Impacts on soils and agricultural potential is low
- Construction villages & temporary developments – land rehabilitated

- **GEOHYDROLOGY (GROUND WATER)**

- Study area is classified as minor-aquifer system due to rock complex
- Therefore no large scale groundwater abstraction occurs
- Intercepting water bearing fractures considered as a short-term negative impact
- Grouting these structures will prevent long-term impacts
- The medium negative impact will be reduced to a very low negative impact with appropriate mitigation

- **SURFACE WATER AND DRAINAGE**

- The study has found no fatal flaws
- Negative impacts –construction
- Burrowing, housing, sewage, and water abstraction
- Impacts are localised
- Impacts can all successfully be mitigated
- The high negative impact can be reduced to a medium negative impact with appropriate mitigation

- **WETLANDS**

- No wetlands occur within the footprint
- Therefore no loss of physical wetland habitat
- Indirect positive benefit on wetlands in the upper catchment, Sehlakwane
- If wetlands and associated buffers are not affected the impact will be very low

- **BIODIVERSITY**

- Impacts - transformation of large tracts of natural and sensitive environment
- Although cannot be mitigated effectively
- Impacts -localised and site specific & contained within a relatively small area.
- Constant environmental monitoring
- Periodic bio-monitoring - invasive species
- Appropriate mitigation measures reduce high negative impact - low medium impact

- **ARCHAEOLOGICAL & HERITAGE**

- Sites dating to the Late Iron Age, Early Historic Period were identified
- Current legislation allows for mitigation measures
- Impacts lessened by:
 - Rerouting/relocating of access routes, construction yards, etc.
 - Formalising sites by fencing them off
 - Excavation and mapping of sites
- Development can continue, if the mitigation measures for each identified site are implemented

- **VISUAL**

- The escarpment-like topography- very high visual quality
- The visual impact adverse, the significance very high-medium
 - Localised and associated with proximity to the site
- Lighting - important visual impact (construction)
 - Design specific mitigation measures
- Visual impacts associated with the project are unavoidable, No fatal flaw
- Appropriate mitigation measures reduce high negative impact - medium negative impact

- **NOISE**

- Acceptable construction related noise impacts are expected.
- Operational noise impact - fairly small
- Any impacts - contained within 300m of the PSS.
- No operational noise impacts at Sehlakwane Village
- Additional noise from traffic will be insignificant
- Supported from a noise perspective

- **SOCIAL**

- Operational & Construction phases have positive impacts
- These relate to sustainable development-
 - employment opportunities (directly and indirectly)
 - infrastructure development
- Enhanced direct employment opportunities
 - transparent recruitment process
 - enable all unskilled labour to have an equal opportunity of employment
- Negative impacts - construction/decommissioning phases
- Negative impacts can be mitigated successfully
- Intra-conflict
 - Forum meetings contractors & construction workers-address issues and concerns pro-actively

- Consider the use of a uniformed salary structure whilst construction workers are on site.
- Inter-conflict:
 - Transparent recruitment process takes place
 - Local trade unions, to enhance the recruitment process
- Construction villages location is appropriate
- Increased social problems (construction site) controlled:
 - HIV/AIDS awareness campaign
 - Controlled Access
- Safety hazards of water- PSS fenced and access controlled
- Local economic investment - use of the local facilities
- Sustainable local economic development
 - Enhance the positive impact by encouraging installation employees to make use of and employ local community members in their households
- The positive impacts of the project outweigh the negative social impacts

- **TRAFFIC**

- Transport of components, the construction traffic and operational traffic - medium negative impact
- Medium impact a low weighting
- Benefits far outweigh the considered Low impact of the transport/traffic
- Supported from a traffic and transport perspective
- Mitigation measures reduce the overall impact to a Low Medium negative impact

- **TOURISM**

- Negative impacts: to loss of sense of place-
 - construction
 - lesser extent -operational phase
- Greatest negative impact on - game reserves construction camp and the construction traffic
- Overall impact- positive during construction and operation - increased business tourism

13. OVERALL CONCLUSION AND RECOMMENDATIONS

- Positive and negative impacts were identified
- No environmental fatal flaws were identified
- Supported from an Environmental perspective
- All impacts can be adequately mitigated.
- An Environmental Management Plan (EMP) has been compiled and released for public review
- EMP details mitigation and management measures - environmental issues during construction and operation

POTENTIAL IMPACT	SIGNIFICANCE	SIGNIFICANCE After Mitigation	STATUS
Geology	Low	Negligible	Negative
Soils and Agricultural Potential	Low	Negligible	Negative
Geohydrology	Low	Low	Negative
Surface Water and Drainage	Medium	Low	Negative
Wetlands	Low	Low	Negative
Biodiversity	High	Medium/Low	Negative
Archaeological and Heritage	High	High	Negative
Visual/Aesthetic	High	Medium	Negative
Noise	Medium	Low	Negative
Socio-economic	Medium	Low	Negative
Traffic	Medium	Low/Medium	Negative
Tourism	Low	Low	Negative
Geohydrology	Low Negative	Medium Positive	Positive
Surface Water and Drainage	Medium	Low	Negative
Wetlands	Medium	Low	Negative
Visual/Aesthetic	High	Medium	Negative
Noise	Medium	Low	Negative
Social	Low	Medium Positive	Positive
Traffic	Medium	Low	Negative
Tourism	Negligible	Low	Positive

14. THE WAY FORWARD

- Compilation and distribution of minutes
- Inclusion of I&AP comments in Final Environmental Impact Report
- Submission of Final Environmental Impact Report to National & Provincial Authorities
- Authority review
- Environmental Authorisation
- Notify I&APs of Decision
- Appeal Period

15. DISCUSSION SESSION

1. *Mr. Jimmy Raseke, Community Member*, enquired who is responsible for compensating the land owners since there were land claims in process.

Mr. Frans Mapulane, Eskom Enterprises PDD, responded that Eskom will be responsible for compensating land owners, but advised that currently there are no land claims at the proposed site.

2. *King Ranto, Traditional Authority*, enquired whether Eskom would inform other neighbouring communities about the project. Furthermore he commented that when there are storms, wind and/or rainy conditions the communities suffer power cuts, he enquired where such power cuts should be reported.

Mr. Gift Magangane, Bohlweki Environmental, responded that meetings were held from the beginning of the project and the last meetings were held in April 2007 that involved the Steelpoort communities. He advised that discussions in these meetings agreed that the current venue was far from the communities; therefore the Chiefs requested that another meeting be held within the communities at a venue closer to the communities. It was suggested that 16 May 2007 would be a suitable date for the meeting and that Chief Maphopha's Community Hall was regarded as the convenient venue for the surrounding communities to meet. On the issues of power failures during heavy storms, windy and/or rainy conditions, people should report these to the local Eskom Distribution office.

3. *Mr. Mogoadi Gamalikhana, Community Member*, enquired if the proposed power station's capacity will strengthen the current supply.

Mr. Tony Stott, Eskom Generation, responded that the purpose of the proposed power station is to supply the whole country with electricity. The Eskom Distribution sector should be contacted by chiefs to request strengthening the supply of electricity to the local community.

Mr. Frans Mapulane, Eskom Enterprises PDD, added that there is a project to upgrade the current distribution lines so as to strengthen the supply of electricity in the area.

4. *King Ranto, Traditional Authority*, enquired about which Eskom sector should be contacted for the card system upgrade as they want reliable and better system for the community. He also requested a copy of the presentation from Kelly Tucker.

Mr. Frans Mapulane, Eskom Enterprises PDD, responded that Eskom Distribution is the right department to contact for that system. There is one office in Witbank and another in Burgersfort.

5. *Mr. Frans Mmadi, Community Member*, enquired about the commencement date of the project and employment opportunities for the community and requested that matriculants of the community should be given training opportunities during the construction and the operational phases of the project.

Mr. Thigesh Velen, Eskom Enterprises Engineering Dept, responded that construction work on the project may commence in April 2008. There will be employment opportunities for

the community during construction phase where they will develop their skills and use them in future projects e.g. brick laying.

Mr. Frans Mapulane added that there will be forums and Department of Labour to deal with employment issues; for matriculants employment, they should visit the Eskom website to find more information regarding employment and/or other developmental opportunities, e.g. bursaries.

6. *King Ranto, Traditional Authority*, enquired whether Eskom has consulted with the land owners or did Eskom inform the chiefs from previous meetings.

Mr. Frans Mapulane, Eskom Enterprises PDD, responded that the land to be used for the project belongs to Chief B.A. Mahlangu and he has been informed about it.

7. *Mr. Mafuku Masha, Community Member*, enquired whether the De Hoop Dam and the PSS project will have offices which will ease interaction with the community for employment purposes, particularly.

Mr. Frans Mapulane, Eskom Enterprises PDD, responded that there will be no such offices, but the chiefs, municipalities, appropriate forums and communities closer to them will be engaged with for this purpose.

8. *Mr. Jimmy Raseke, Community Member*, requested Eskom to invite chiefs to one meeting as chiefs usually do not come when invited by the other chiefs.

Chief Maphoha, responded that the venue where the meeting was held on is Ward 29 which represents most chiefs, and was agreed to by the Chief's meeting on 24 April 07, therefore, there will be no need to have another meeting. The meeting was in agreement with the other chiefs and invitations were extended.

9. *Mr. Daniel Mokhomane, Community Member*, raised a concern that it is not proper to raise the project's issues in the absence of other chiefs.

Mr. Gift Magangane, Bohlweki Environmental, responded that Ms Sibongile Hlomuka was responsible for the invitations. In the first meeting, during the Scoping phase, there were more chiefs present. In the meeting held in April, it was raised that the venue selected was too far away for the communities to attend and thus this meeting was re-scheduled through the chiefs that were present.

10. *Mr. Jimmy Raseke, Community Member*, enquired whether the community has been notified about the project.

Mr. Gift Magangane, Bohlweki Environmental responded that the communities have been notified and engaged about the project. He further requested the chiefs to pass on the message to their communities as it was also requested during the Scoping phase of the proposed project.

16. CLOSURE

Mr. Gift Magangane thanked everyone for their attendance and contributions.

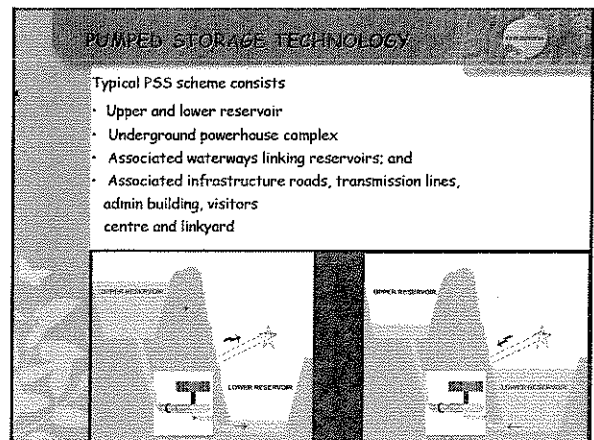
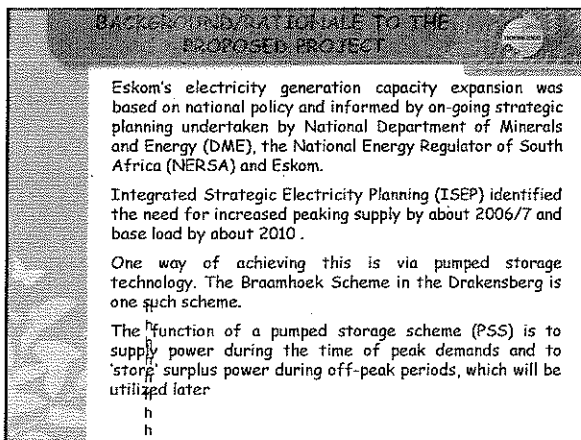
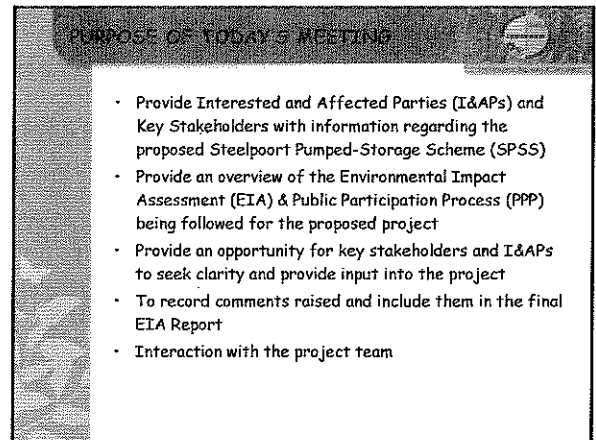
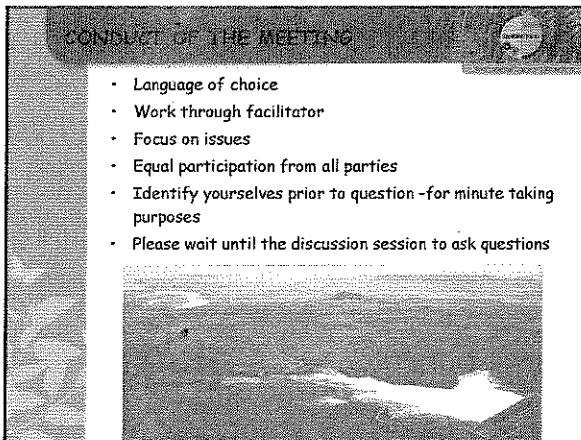
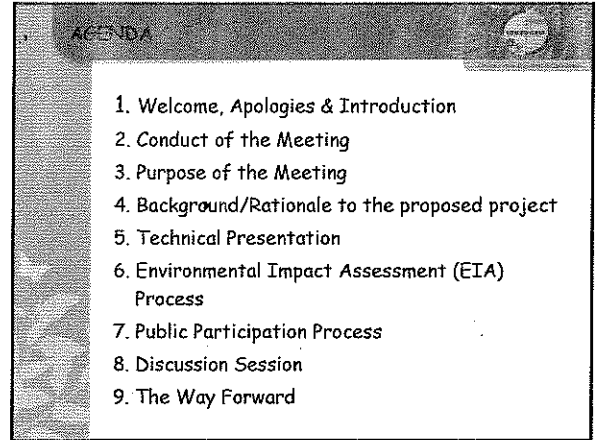
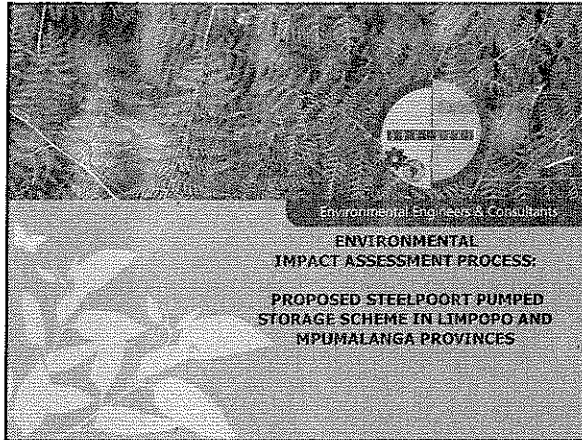
The meeting was concluded at 15H30

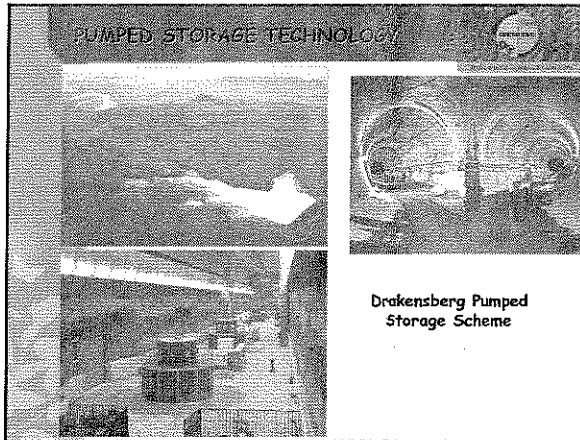
APPENDIX A
ATTENDANCE RECORD

<u>Name</u>	<u>Company</u>
Bokwe, Tobile	Eskom Generation
Gewers, Nico	Eskom Generation
Gumbi, Sibongile	BOHLWEKI ENVIRONMENTAL
Madhlaba, Christina	
Magangane , Gift	Bohlweki Environmental
Makubela, Selina	
Mamaru, Sophy	
Mapulane , Frans	Eskom Enterprise
Mashilangoako, Piet	
Mositsa, Emely	
Mositsa, Emely	
Mositsa, Michael	
Mositsa, Petrus	
Mositsa, Sophy	
Mositsa, Sophy	
Mthombeni, Linah	
Mthombeni, Martha	
Mthombeni, Poppy	
Mthombeni, Poppy	Kgakgabejane Luncheon Club
Ratsela, Jim	
Velen, Thigesh	Eskom Generation

Totals:

APPENDIX B
TECHNICAL PRESENTATION
Gift Magangane





ENVIRONMENTAL STUDY REQUIREMENTS

Application has been made under the new EIA Regulations. The primary triggers are (according to R386 and R387):

- The construction of facilities or infrastructure, including associated structures or infrastructure, for:
 - 1(a) the generation of electricity where -
 - the electricity output is 20 megawatts or more; or
 - the elements of the facility cover a combined area in excess of 1 hectare.
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ENVIRONMENTAL STUDY REQUIREMENTS

- 1(n) the transfer of 20 000 cubic metres or more water between water catchments or impoundments per day
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- The construction of masts of any material or type of any height, including those used for telecommunication broadcasting and also transmission

EIA PROCESS FOR THE PROJECT

- Phase 1: Environmental Scoping Study (ESS)
- Phase 2: Environmental Impact Assessment (EIA)
- Phase 3: Environmental Management Plan (EMP)

Public Participation Process - Ongoing throughout the EIA Process

WHY ARE ENVIRONMENTAL STUDIES NEEDED?

- Identify and assess potential environmental impacts (biophysical & social)
- Propose mitigation & management measures
- Authorisation from the National Department of Environmental Affairs and Tourism (NDEAT)
- Inform project planning process

EIA PROCESS TO DATE

EIA PROCESS

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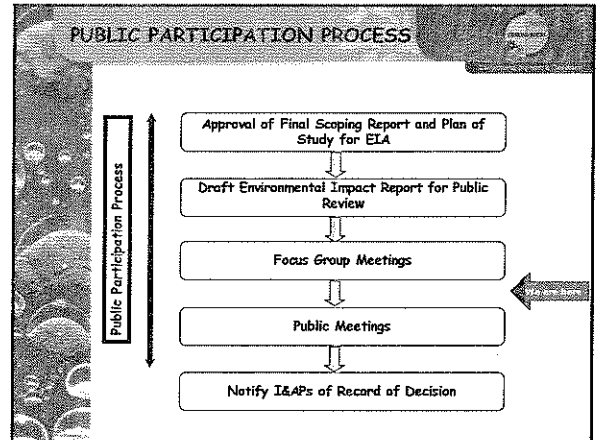
  graph TD
    A[Application] --> B[Environmental Scoping Study]
    B --> C[Plan of Study for EIA]
    C --> D[Environmental Impact Assessment]
    D --> E[Record of Decision]
  
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Public Participation Process (vertical arrow on the left)

WE ARE CURRENTLY HERE (arrow pointing to Environmental Impact Assessment)

PUBLIC PARTICIPATION PROCESS

- What is PPP?
 - A tool to inform I&APs of a proposed project.
 - A tool to help integrate the comments of the I&APs into the relevant phases of a proposed project.
- What PPP is Not?
 - Not a Public Relations exercise
 - Not a means to satisfy grievances - rather to record comments



SITES INVESTIGATED

- Three alternative sites were investigated during the ESS
- The ESS has nominated a preferred site for further detailed investigation in the EIA phase

The map shows three alternative sites: Site A (near Senlakwane), Site B (near Hagoobu), and Site C (near Entzoon). It also shows roads R570, R555, and R565, and directions to Steelport, Roosenekal, and Entzoon.

PREFERRED SITE

The map highlights the 'Core Study Area' around Senlakwane. It shows roads R570, R555, and R565, and directions to Steelport, Roosenekal, and Stoffberg. A north arrow is present.

AIMS OF SCOPING PHASE

- Identified & evaluated potentially significant environmental impacts (both positive and negative impacts)
- Validate Environmental Screening Report
- Evaluate site alternatives.
- Public Participation
 - Inform the public of the proposed project
 - Opportunity to raise concerns about and provide input into the project

AIMS OF SCOPING PHASE

- Nomination of a preferred site (Site A) for further investigation in the EIA phase (environmental, economic and technical issues account).
- Make recommendations regarding studies required within the detailed EIA.

The map shows a large shaded area representing the scoping phase. A legend in the top right corner lists: 'Scoping Area', 'Proposed Road Corridor', 'Existing Infrastructure', 'Proposed Infrastructure', and 'Proposed Land Use Change'. A north arrow and a scale bar are also present.

AIMS OF EIA PHASE

- Rating of Significant Impacts
- Public Participation
- EIA consider the impacts throughout the entire project life cycle e.g.:


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graph TD
    Impact[Impact] --- Construction[Construction Phase]
    Impact --- Operational[Operational Phase]
    Impact --- Decommissioning[Decommissioning Phase]
    
```

- Recommendations regarding mitigation and management of significant impacts
- Draft Environmental Management Plan


ASPECTS CONSIDERED IN THE EIA

- Biophysical Aspects
 - Geology
 - Soils and Agricultural potential
 - Geohydrology
 - Surface Water and drainage
 - Wetlands
 - Biodiversity
- Social Aspects
 - Archaeology and Heritage
 - Visual
 - Noise
 - Social
 - Traffic
 - Tourism



ASSESSMENT OF IMPACTS Geology

- Very good rock conditions for underground works.
- Construction materials available within the dam basin.
- Clay material for the lower dam core is available in close proximity.
- Steelpoort Fault does not impact the site.
- No fatal flaws were discovered
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ASSESSMENT OF IMPACTS Soils & Agricultural Potential


- Reservoir sites consist of shallow soils with deeper alluvial soils.
- No areas with high agricultural potential occur within reservoir sites.
- Additional Roads are already existing routes
- Impacts on soils and agricultural potential is low
- Construction villages & temporary developments - land rehabilitated.

ASSESSMENT OF IMPACTS Geohydrology (Ground Water)

- Study area is classified as minor-aquifer system due to rock complex.
- Therefore no large scale groundwater abstraction occurs.
- Intercepting water bearing fractures considered as a short-term negative impact
- Grouting these structures will prevent long-term impacts.
- The medium negative impact will be reduced to a very low negative impact with appropriate mitigation.

ASSESSMENT OF IMPACTS Surface Water & Drainage

- The study has found no fatal flaws
- Negative impacts - construction burrowing, housing, sewage, and water abstraction),
- Impacts are localised.
- Impacts can all successfully be mitigated,
- The high negative impact can be reduced to a medium negative impact with appropriate mitigation



ASSESSMENT OF IMPACTS
Wetland

- No wetlands occur within the footprint
- Therefore no loss of physical wetland habitat
- Indirect positive benefit on wetlands in the upper catchment, Sehlakwane.
- If wetlands and associated buffers are not affected the impact will be very low.

ASSESSMENT OF IMPACTS
Biodiversity

- Impacts - transformation of large tracts of natural and sensitive environment
- Although cannot be mitigated effectively, impacts -localised and site specific & contained within a relatively small area.
- Constant environmental monitoring
- Periodic bio-monitoring - invasive species.
- Appropriate mitigation measures reduce high negative impact - low medium impact

ASSESSMENT OF IMPACTS
Archaeological and Heritage

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 - Formalising sites by fencing them off
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- Development can continue, if the mitigation measures for each identified site are implemented

ASSESSMENT OF IMPACTS
Visual

- The escarpment-like topography- very high visual quality.
- The visual impact adverse, the significance very high-medium.
 - localised and associated with proximity to the site.
- Lighting - important visual impact (construction)
 - Design specific mitigation measures.
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Noise

- Acceptable construction related noise impacts are expected.
- Operational noise impact - fairly small.
- Any impacts - contained within 300m of the PSS.
- No operational noise impacts at Sehlakwane Villoge.
- Additional noise from traffic will be insignificant.
- Supported from a noise perspective.

ASSESSMENT OF IMPACTS
Social

Operational & Construction phases have positive impacts,

- These relate to sustainable development-
 - employment opportunities (directly and indirectly)
 - infrastructure development.
- Enhanced direct employment opportunities
 - transparent recruitment process.
 - enable all unskilled labour to have an equal opportunity of employment
- Negative impacts - construction/decommissioning phases.
- Negative impacts can be mitigated successfully.

ASSESSMENT OF IMPACTS

Social 2011

- Intra-conflict
 - Forum meetings contractors & construction workers-address issues and concerns pro-actively.
 - Consider the use of a uniformed salary structure whilst construction workers are on site.
- Inter-conflict:
 - Transparent recruitment process takes place.
 - Local trade unions, to enhance the recruitment process.
- Construction villages location is appropriate
- Increased social problems (construction site) controlled:
 - HIV/AIDS awareness campaign
 - Controlled Access

ASSESSMENT OF IMPACTS

Social 2011

- Safety hazards of water- PSS fenced and access controlled
- Local economic investment - use of the local facilities
- Sustainable local economic development
 - Enhance the positive impact by encouraging installation employees to make use of and employ local community members in their households
- The positive impacts of the project outweigh the negative social impacts

ASSESSMENT OF IMPACTS

Traffic

- Transport of components, the construction traffic and operational traffic - medium negative impact.
- Medium impact a low weighting.
- Benefits far outweigh the considered Low impact of the transport/traffic.
- Supported from a traffic and transport perspective.
- Mitigation measures reduce the overall impact to a Low Medium negative impact

ROAD ALTERNATIVES

ROAD ALTERNATIVES

ASSESSMENT OF IMPACTS

Tourism

- Negative impacts: to loss of sense of place- construction
 lesser extent -operational phase.
- Greatest negative impact on - game reserves construction camp and the construction traffic.
- Overall impact- positive during construction and operation - increased business tourism

OVERALL CONCLUSIONS AND RECOMMENDATIONS

- Positive and negative impacts were identified
- No environmental fatal flaws were identified
- Supported from an Environmental perspective.
- All impacts can be adequately mitigated.
- An Environmental Management Plan (EMP) has been compiled and released for public review
- EMP details mitigation and management measures - environmental issues during construction and operation.

ASSESSMENT OF IMPACTS

Construction

POTENTIAL IMPACT	SIGNIFICANCE	SIGNIFICANCE After Mitigation	STATUS
Geology	Low	Negligible	Negative
Soils and Agricultural Potential	Low	Negligible	Negative
Geohydrology	Low	Low	Negative
Surface Water and Drainage	Medium	Low	Negative
Wetlands	Low	Low	Negative
Biodiversity	High	Medium/Low	Negative
Archaeological and Heritage	High	High	Negative
Visual/Aesthetic	High	Medium	Negative
Noise	Medium	Low	Negative
Socio-economic	Medium	Low	Negative
Traffic	Medium	Low/Medium	Negative
Tourism	Low	Low	Negative

ASSESSMENT OF IMPACTS

Operational

POTENTIAL IMPACT	SIGNIFICANCE	SIGNIFICANCE After Mitigation	STATUS
Geohydrology	Low Negative	Medium Positive	Positive
Surface Water and Drainage	Medium	Low	Negative
Wetlands	Medium	Low	Negative
Visual/Aesthetic	High	Medium	Negative
Noise	Medium	Low	Negative
Social	Low	Medium Positive	Positive
Traffic	Medium	Low	Negative
Tourism	Negligible	Low	Positive

WAY FORWARD

- Compilation and distribution of minutes
- Inclusion of I&AP comments in Final Environmental Impact Report
- Submission of Final Environmental Impact Report to National & Provincial Authorities
- Authority review
- Environmental Authorisation
- Notify I&APs of Decision
- Appeal Period

Thank You.



Environmental Engineers & Consultants

Discussion Session

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