ENVIRONMENTAL IMPACT ASSESSMENT – EIA PHASE

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

FINAL MINUTES OF THE FOCUS GROUP MEETING WITH

STEELPOORT TRADITIONAL LEADERS

HELD ON
TUESDAY 24 APRIL 2007
AT 17H00
AT
TUBATSE GOLF CLUB, 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 Hlomuka 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 TUESDAY, 24 April 2007 STEELPOORT TRADITIONAL LEADERS 17H00

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 (N DEAT)
- 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

9. PUBLIC PARTICIPATION PROCESS

- 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

10. SITES INVESTIGATED

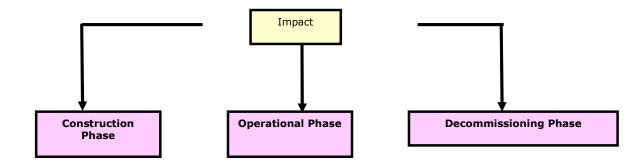
- Three alternative sites were investigated during the ESS
- The ESS has nominated a preferred site for further detailed investigation in the EIA phase

11. 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
 - o 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.

12. 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

13. ASPECTS CONSIDERS 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.

BIODERSITY

- 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

• ARCHAELOGICAL & 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.

- o 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.
 - o Localised and associated with proximity to the site.
- Lighting important visual impact (construction)
 - o 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)
 - o infrastructure development.
- Enhanced direct employment opportunities
 - o transparent recruitment process.
 - o 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:
 - o Transparent recruitment process takes place.
 - o 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 STATUS	
		Mitigation	
Geology	Low	Negligible	Negative
Soils and Agricultural	Low	Negligible	Negative
Potential			

Geohydrology	Low	Low	Negative
Surface Water and	Medium	Low	Negative
Drainage			
Wetlands	Low	Low	Negative
Biodiversity	High	Medium/Low	Negative
Archaeological and	High	High	Negative
Heritage			
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 	• Medium	• Low	 Negative
Drainage			
 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. Isaac, Gamaphopha, raised a concern about the bribery scheme that normally occurs when people are looking for jobs, where job-seekers would pay someone to secure an opportunity.

Mrs. Deidre Herbst, Eskom Generation, responded that this will not happen as Eskom will follow a proper employment strategy that includes Dept of Labour, in the area, to make sure that there are no irregularities.

2. Mr. France Mmadi, Tswako-Maepa enquired about the skills development for the community while they are assisting during construction phase.

Mrs. Deidre Herbst, Eskom Generation, responded that the employed community members will develop their skills while working on the project. Such attained skills may be used in other projects elsewhere or as a competitive advantage to look for a job.

3. Mr. France Mmadi raised a concern about the meeting venue as it is far from the intended community (for the morning of the 25 April 07) and asked if Eskom could provide transport for people to attend the meeting.

Mr. Gift Magangane, Bohlweki Environmental, (after a series of deliberations on logistics about whether the communities meeting should proceed the following morning or be postponed) asked the attendants to advice on a suitable venue, time and date to accommodate the community for the purposes of consultation for the project.

<u>After some discussions, it</u> was decided that the 16 of May 2007, at the Ga-Maphopha Tribal Hall, at 15H00 would be suitable as there were other community meetings planned on that day.

16. CLOSURE

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

The meeting was concluded at 18h30

APPENDIX A ATTENDANCE RECORD

STEELPOORT CHROME CLUB ATTENDANCE REGISTER: FGM 24 APRIL 2007

Name
Bokwe, Tobile
Ga-ntake, SA
Gumbi, Sibongile
Herbst, Deidre
Jabadi, Phineas
Kelefetswe, Sekgomotso
Maepa, HV
Maepa, Julia
Magangane, Gift
Makunyane, CI
Maphopha, KF
Maphopha, LT
Maphopha, Mokome
Mapulane, Frans
Masha, PL
Mmadi, Makopole
Seymour, Greg
Stott, Tony

Company
Eskom Generation
Ngoabe
BOHLWEKI ENVIRONMENTAL
Eskom Generation

Eskom Generation Tswako Maepa

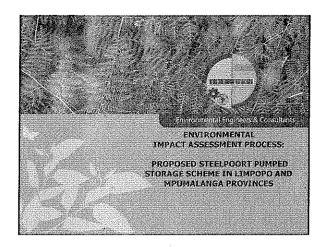
Bohlweki Environmental

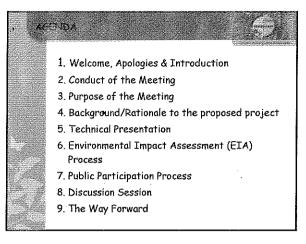
Gamaphopha Gamaphopha Gamaphopha Eskom Enterprise

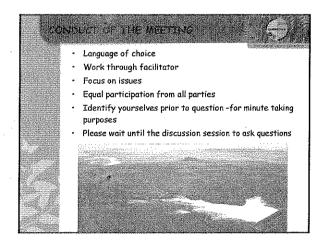
Bohlweki Environmental Eskom Generation

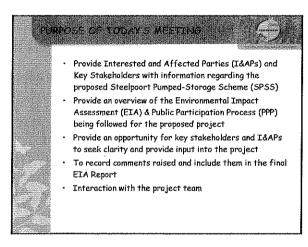
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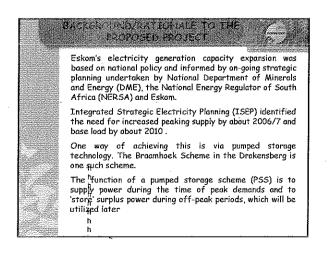
APPENDIX B TECHNICAL PRESENTATION Gift Magangane

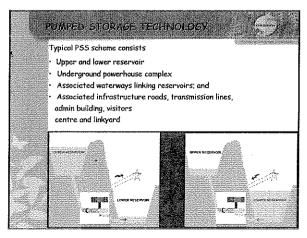


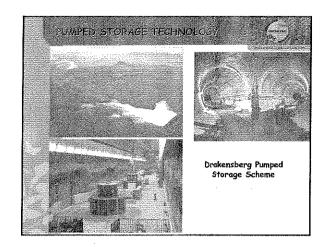


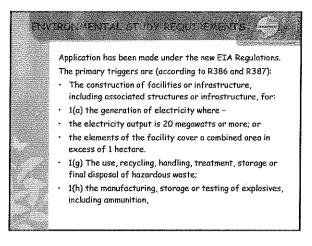


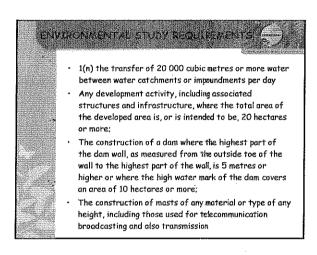


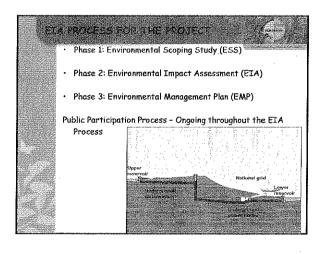


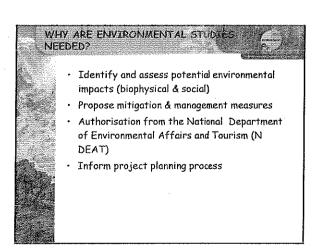


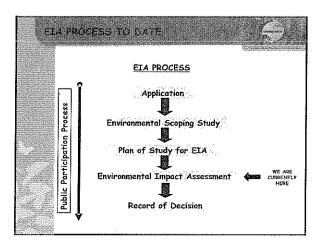


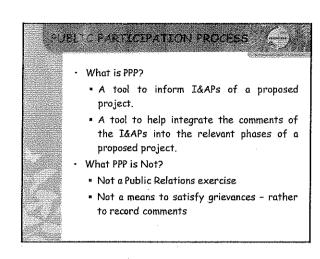


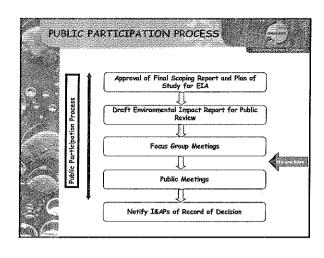


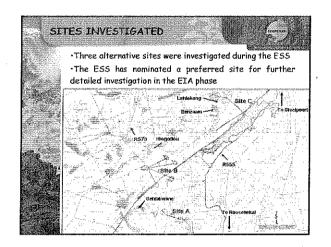


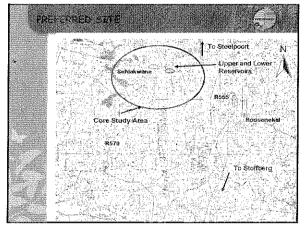


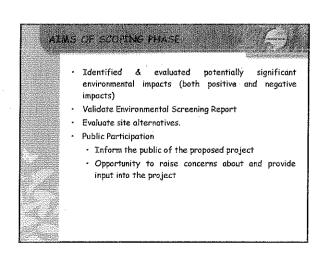


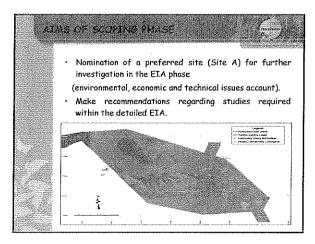


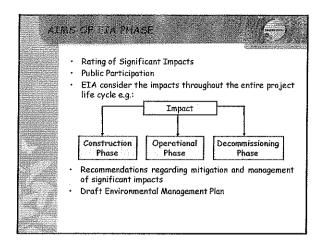


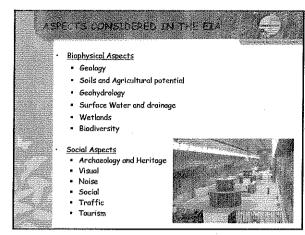


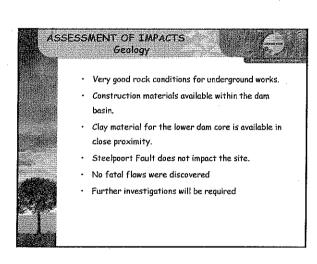


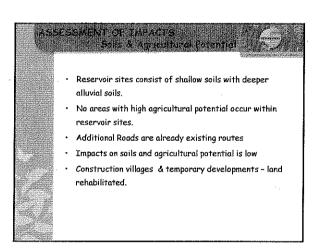


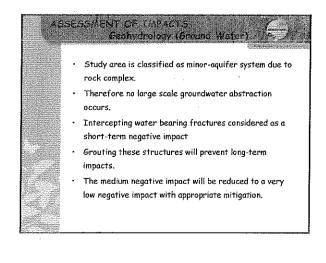


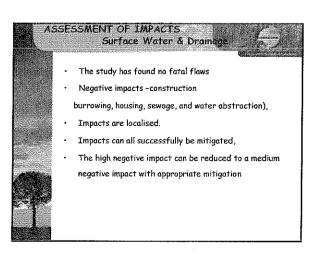












No wetlands occur within the footprint Therefore no loss of physical wetland habitat Indirect positive benefit on wetlands in the upper catchment, Sehlakwane. If wetlands and associated buffers are not affected the impact will be very low.

