



Environmental Impact Assessment (EIA) and Waste Licensing Application for the Proposed Continuous Ashing Activities at Tutuka Power Station

**Focus Group Meeting – Lekwa Local
Municipality**

Die Kliphuis

22 November 2012



Purpose of the Meeting

- Provide I&AP's with information regarding:
 - The proposed project
 - The EIA process to date
 - How to get involved in the project
 - Findings of the Scoping Study
- Provide I&AP's with the opportunity to raise issues regarding the potential impacts of the project on the environment
- Invite I&APs to register on the project database
- Provide an opportunity for I&AP's to interact with the project team





Conduct of the Meeting

- Focus on issues at hand
- Equal opportunity
- Cell phones on silent
- Work through the facilitator
- Speak in language of choice



Role Players

	Lidwala Consulting Engineers (SA) (Pty) Ltd • Independent Environmental Assessment Practitioner
	Imaginative Africa • Public Participation Consultant
	Eskom Holdings SOC Ltd – Generation Division Tutuka Power Station • Applicant
	Department of Environmental Affairs • Lead Decision-maker for the Environmental Authorization Application
	Interested and Affected Parties • Raise comments and issues regarding the proposed project for inclusion in the relevant documentation
	Commenting Authorities • MDEDET, • DWA • SAHRA • DAFF • DMR, etc..





Responsibilities

Lidwala Consulting Engineers (SA) (Pty) Ltd (EAP):

- Be independent with no vested interest
- Have the necessary qualifications & experience
- Responsible for EIA process, information & reports
- Provide relevant & objective information to the Authorities, the I&APs & the Applicant
- Ensure Public Participation Process (PPP) is undertaken
- Ensure all issues raised are addressed or responded to



Responsibilities

Eskom Holdings SOC Limited (Applicant):

- Appoint suitable, independent consultants
- Ensure adequate resources are available to conduct an effective, efficient & equitable EIA
- Ensure that the Consultants are provided with all relevant information to undertake the EIA effectively
- Ensure that the Consultant provides all relevant information to the Authorities





Responsibilities

Relevant Environmental Authority (National DEA):

- Efficient & expedient in evaluating proposals
- Compliance with regulatory requirements
- Inter-departmental co-operation & consultation
- Consultation with the Applicant & the Consultant
- Evaluation/review & decision-making
- Requiring sufficient detail to make informed decisions




Responsibilities

Interested & Affected Parties (I&APs)



- Provide input & comment during various stages of the EIA process
 - Identify issues & alternatives
 - Review of reports
 - Draft Scoping Report (DSR)
 - Draft Environmental Impact Report (DEIR)
 - Waste License Report
- Provide input & comment within specific timeframes






What does the Project Entail?

Presented by:
E van Rensburg



Problem Statement

- The current main dump operation will run out of space by September 2028
- The position three standby ash dump will run out of space by December 2016.
- If standby dump positions 4,5 and 6 are used, then it will run out of space by 2020.
- The main spreader requires outages for major repairs.
- The existing emergency ash handling area at the Power Station is too small.





What does the Project Entail?

- Tutuka Power Station envisages the continuation of dry ash disposal over Eskom owned land, purchased before the commencement of environmental laws, such as the Environment Conservation Act
- Eskom would like to align its continued ashing activities, with the requirements of the NEMWA waste licensing processes
- The proposed continuous development is an ash disposal facility with the following specifications:
 - Capacity of airspace of 353,1 million m³ (Existing and remaining); and
 - Ground footprint of 759 Ha (Proposed Continuous Ashing & pollution control canals)
- The project also includes the expansion of the emergency ashing area at the power station from approximately 1900m² to 21 000m²



Proposal

- Convert the existing main dump operation to radial operation.
- Expand the ash dump to the south side which becomes the new standby ash dump.
- Construction of new channels, pipes, fences and roads.
- Construct new spreader system.
- Construct concrete slabs and channels at the emergency off loading area.



Existing Ash Dump



Total Ash Dump





New spreader system



Environmental Studies

Presented by:
Ashlea Strong

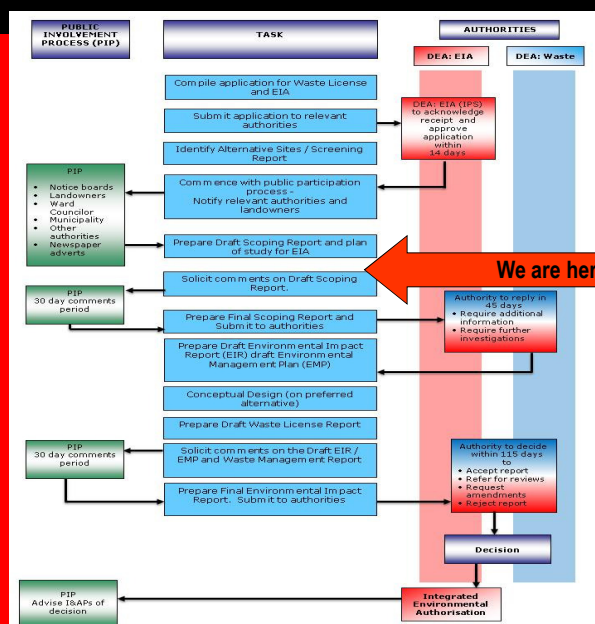


Why Environmental Studies?

- Legislative tool used to ensure that potential impacts are identified, assessed and mitigated as required
- Integrated Application:
 - National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010;
 - GN R544 – Listing Notice 1: 11 Listed Activities
 - GN R545 – Listing Notice 2: 3 Listed Activities
 - GN R546 – Listing Notice 3: 4 Listed Activities
 - National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and Government Notice 718 of 2009
 - Category A – 1 Listed Activity
 - Category B - 2 Listed Activities



The EIA Process





Envisaged Timeline

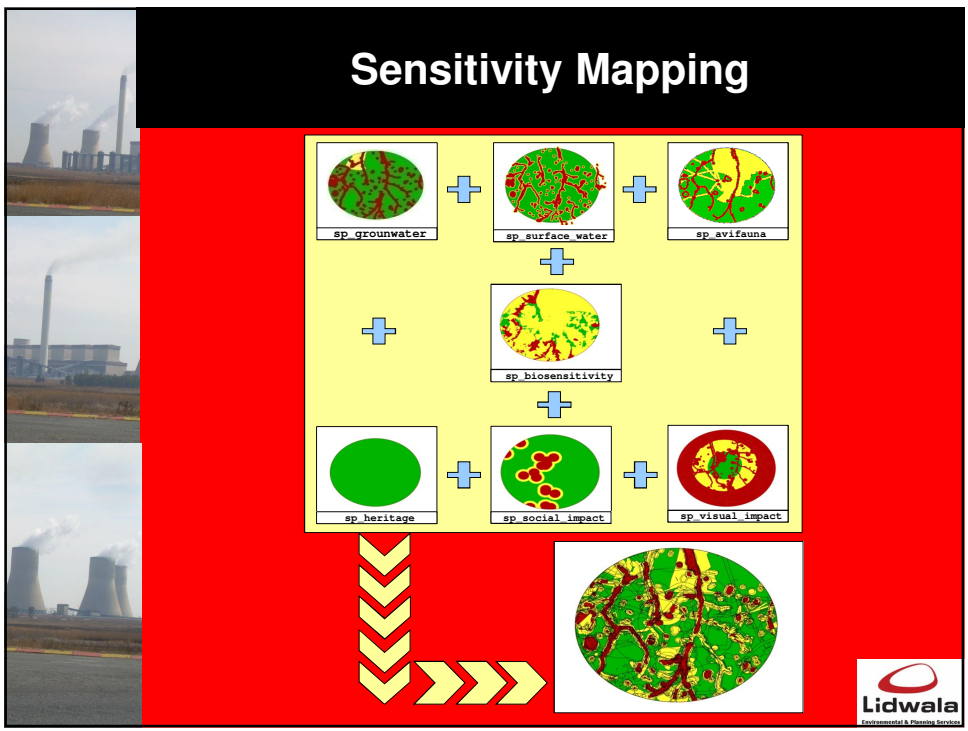
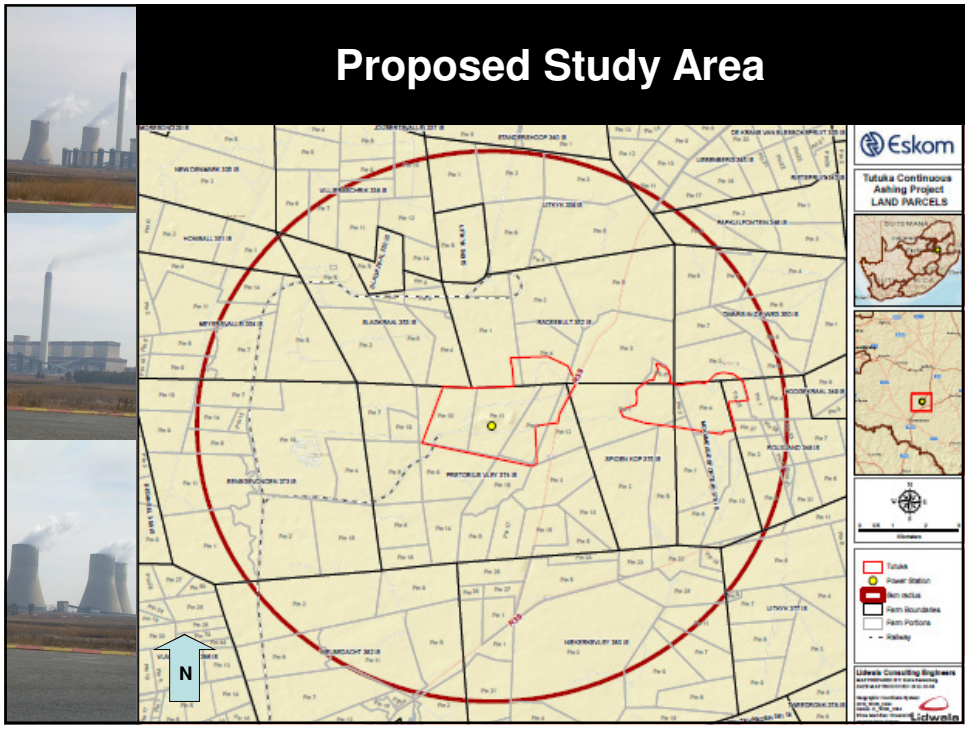
Phase / Task	Envisaged Date
Application form submission	August 2012
Screening / Scoping Phase	August 2012 – January 2013
EIA Phase	January – June 2013
Final Documents to DEA	June 2013
Integrated Authorisation	August 2013

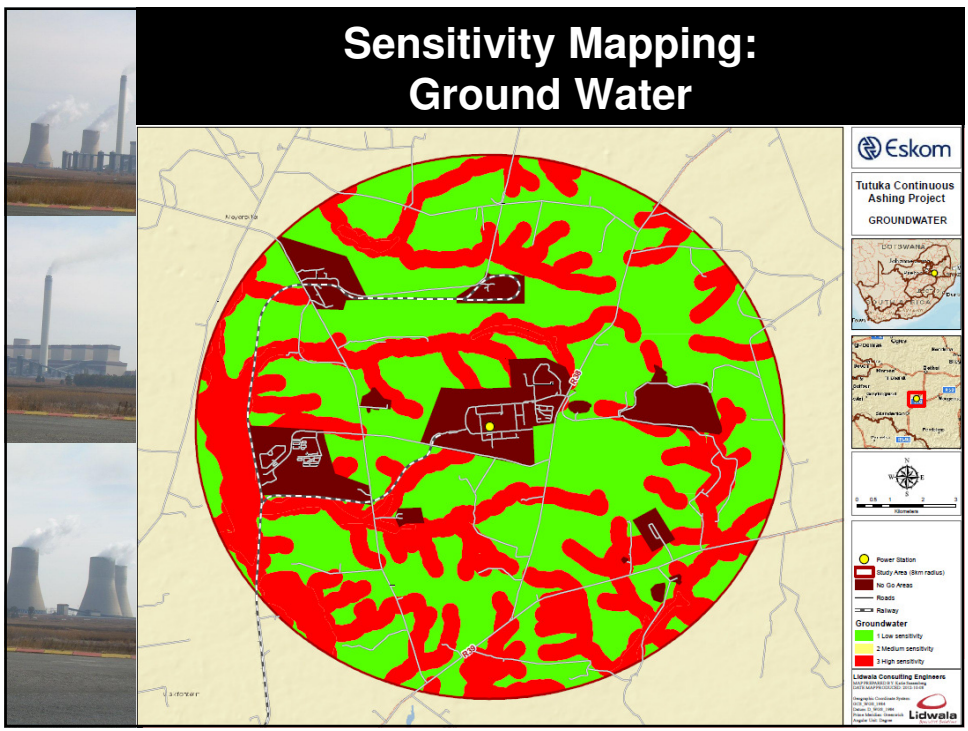
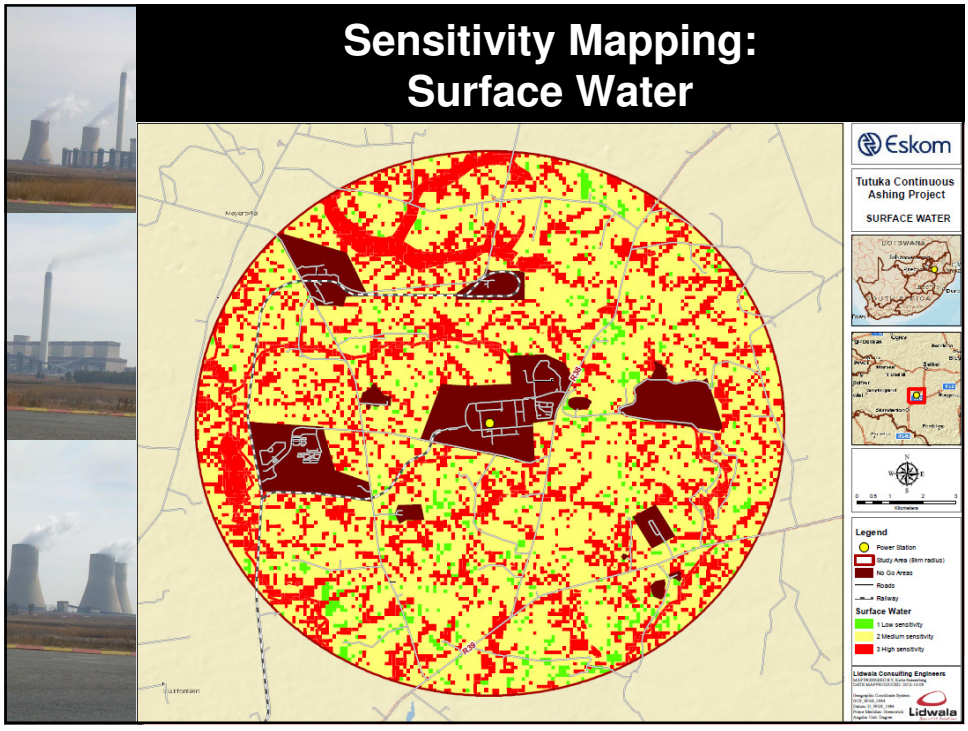


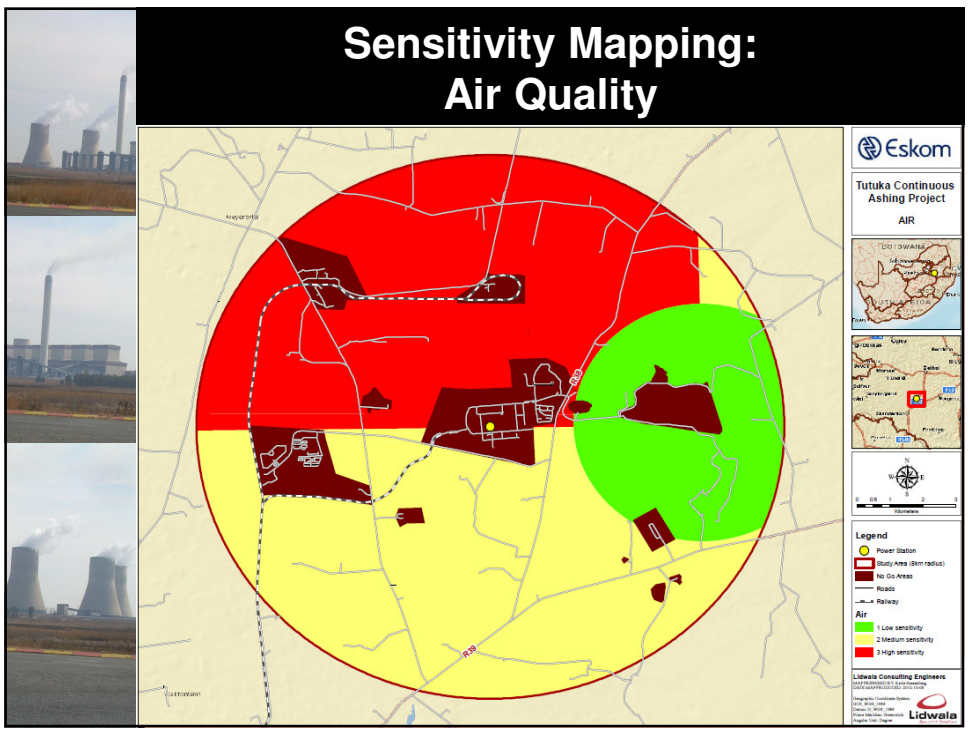
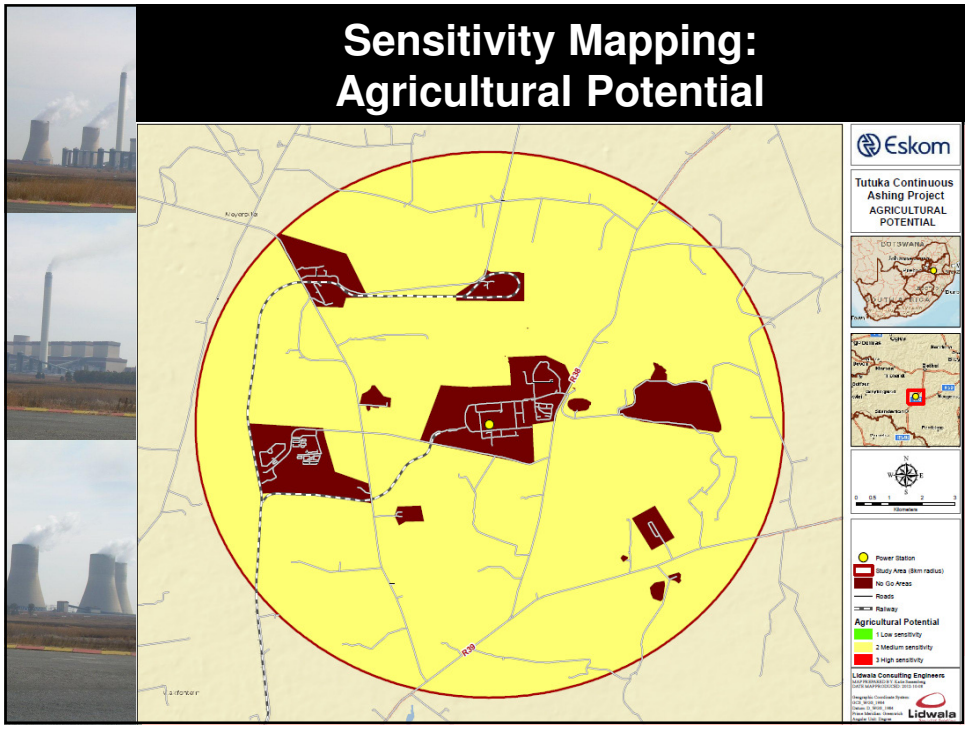
Sensitivity Mapping

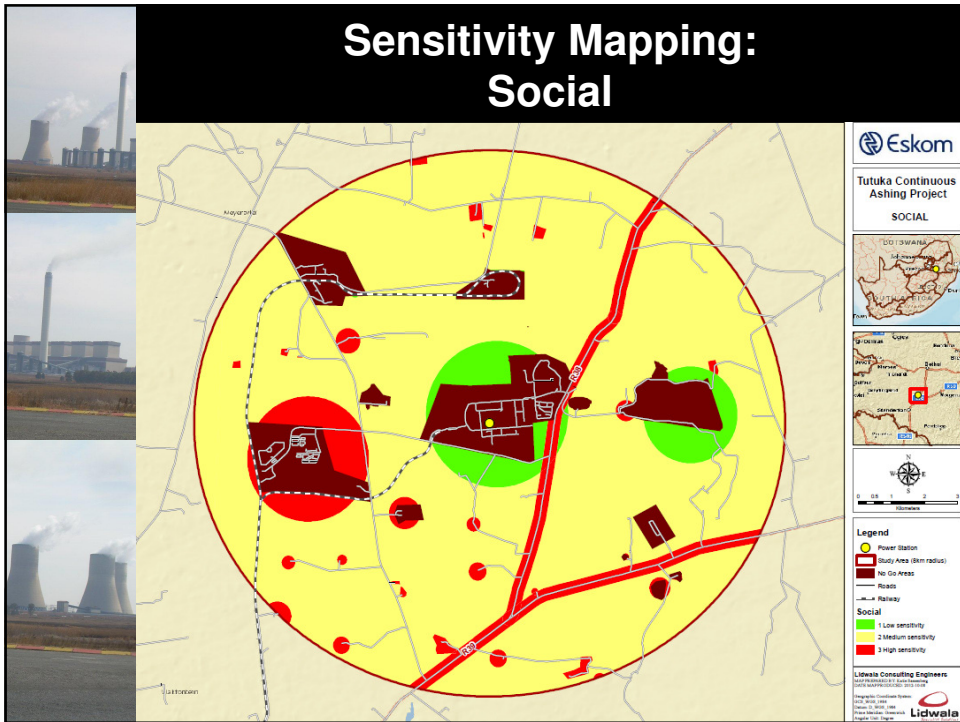
- Eskom have already identified an area for the proposed continuous ashing
- However - in order to allow for a robust environmental process all land within a radius of 8 km was assessed in order to:
 - Identify potential alternatives sites
 - Identify sensitive environmental aspects that may limit the suitability of all identified alternative sites







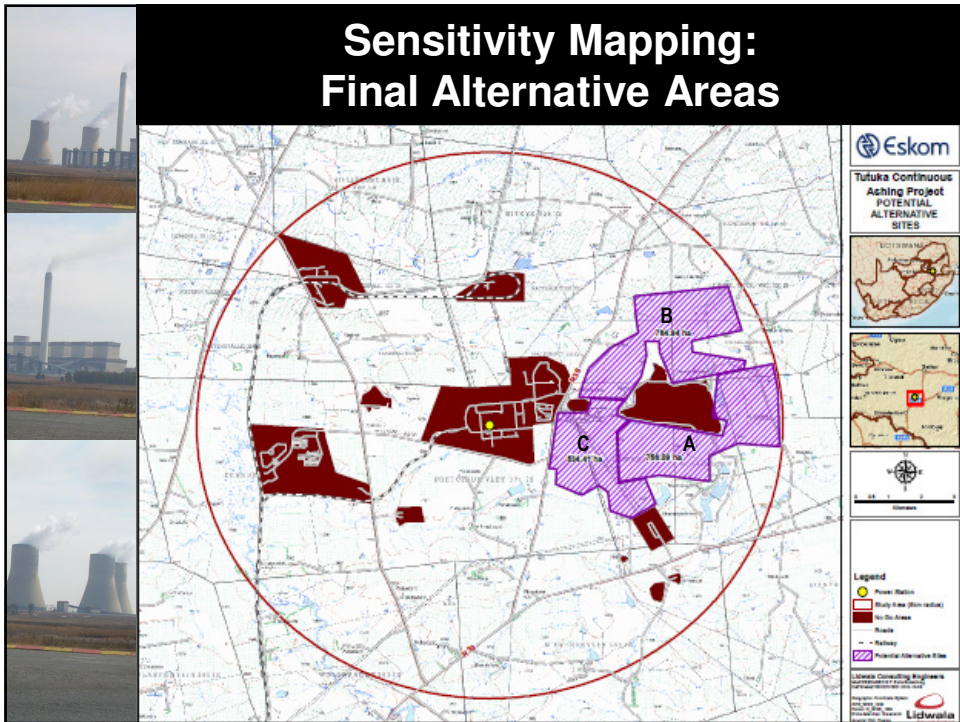
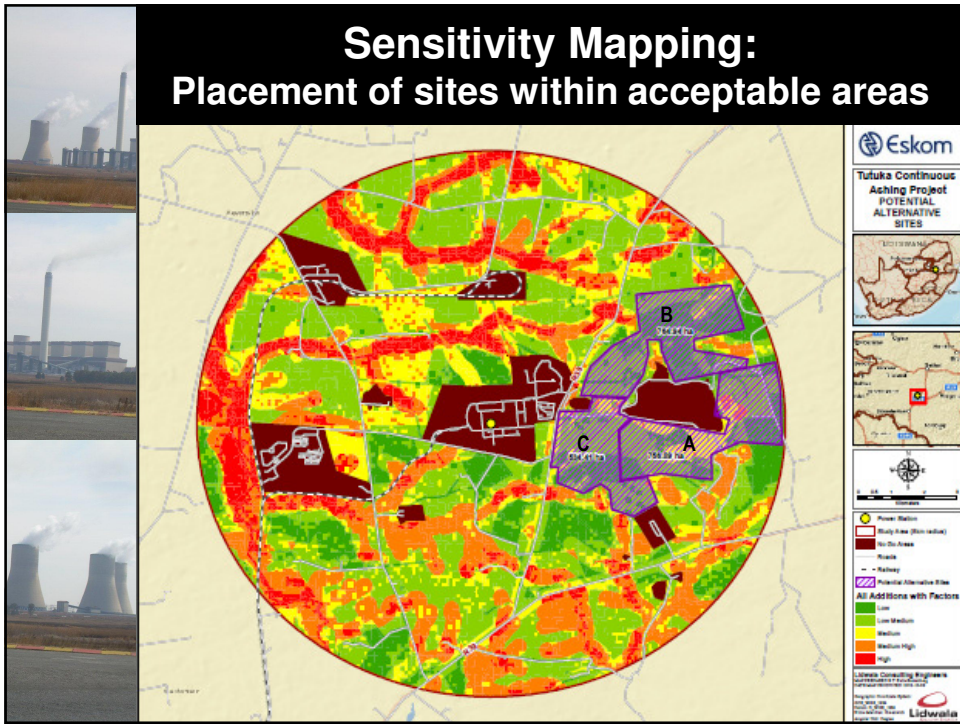




Sensitivity Mapping

- In order to calculate a combined sensitivity rating for the study area, all the GIS layers received from each specialist area of study were combined to form one integrated layer
- Three results were then calculated from the integrated layer:
 - **maximum sensitivity wins:** The maximum sensitivity rating became the sensitivity index.
 - **sum of all sensitivity ratings:** The sensitivity index was the sum of each sensitivity rating.
 - **sum of all adjusted sensitivity ratings:** Each sensitivity rating found in the array was adjusted by the assigned adjustment factor for each particular layer. The sensitivity index was then the sum of these.
- The presented maps were then created by reclassifying each logic result into five classes, namely:
 - low sensitivity (green),
 - low medium sensitivity (Light green),
 - medium sensitivity (yellow),
 - medium high (orange),
 - high sensitivity (red).

Lidwala
Environmental & Planning Services





Potential Impacts: Biophysical

- **Geology**
 - Impacts related to the construction-related earthworks
 - Impacts related to the pollution in case of spillage/leakage of hydrocarbon and other hazardous material from storage facilities
- **Geotechnical issues**
 - Phase 1 geotechnical study will be undertaken in the EIA phase.
- **Topography**
 - Change to drainage patterns due to construction-related earthworks and additional stormwater drainage patterns.



Potential Impacts: Biophysical

- **Land Capability / Agricultural Potential**
 - Pollution of soil due to handling, use and storage of hazardous substances during construction and operation.
 - The loss of available top soil.
 - Key variables that determine the land capability of the study area such as soil fertility reduced and disturbed due to the potential activities related to the ash disposal facility.
 - The loss of viable agricultural land.
- **Avifauna**
 - Destruction of habitat and disturbance of birds due to Ash Disposal Facility
 - Impacts due to associated Infrastructure such as powerlines e.g. Electrocutations, Collisions etc..





Potential Impacts: Biophysical

- **Groundwater**

- Contamination of ground water due to hydrocarbon spillage and seepage into groundwater reserves, affecting groundwater quality.
- Further construction of infrastructure and compaction of the area will further contribute to reduced water infiltration rates to replenish groundwater aquifers.

- **Surface Water**

- Impacts on surface water quality;
- Impacts on hydrology;
- Impacts related to erosion and sedimentation;
- Impacts on aquatic biota; and
- Impacts on aquatic ecosystem services.



Potential Impacts: Biophysical

- **Biodiversity**

- Direct impacts on threatened flora and fauna species;
- Direct impacts on protected flora species;
- Direct impacts on common fauna species/ faunal assemblages (including migration patterns, corridors, etc.);
- Human - Animal conflicts;
- Loss or degradation of natural vegetation/ pristine habitat (including ecosystem functioning);
- Loss/ degradation of surrounding habitat;
- Impacts on SA's conservation obligations & targets;
- Increase in local and regional fragmentation/ isolation of habitat; and
- Increase in environmental degradation, pollution (air, soils, surface water).





Potential Impacts: Social

- **Air Quality**
 - Increase in dust generating activities during construction and operation including exceedances of PM10 concentrations and exceedances of dustfall rates.
- **Visual**
 - Impact on the current visual landscape.
 - Impact on sensitive receptors,
- **Heritage**
 - identify the potential heritage sites within the study area
 - identify any impacts (if any) that may occur on these sites as a result of the continuous ashing project
- **Socio-Economic**
 - Perceptions and fears associated with the proposed project; and
 - Local, site-specific issues.



Conclusions and Recommendations

- Three Alternative Areas and the No-Go Alternative to be investigated in the EIA Phase
- Investigated alternatives for relocation of linear infrastructure (where required)
- Undertake detailed specialist studies
- Compile Environmental Impact Assessment Report
- Waste License Report to be compiled
- Geotechnical studies to be undertaken along with site survey
- Develop Conceptual Design





Public Participation

Presented by:
Bongi Mhlanga



What is Public Participation?

- Public participation is a joint effort between:
 - Stakeholders
 - The proponent
 - Technical Specialists
 - Decision-makers
- Work together to produce better decisions
- Aim: To inform a wide range of I&APs
- Tool: Allows the public to exchange information and express their views and concerns
- Scoping: Facilitates the identification of issues and concerns early in the EIA process
- All contributions from I&APs will be fully documented, evaluated and responded to in the EIA





Public Participation Process to Date

- Identification of Stakeholders or I&APs
- Notification and Advertisements
 - Project advertised in 2 newspapers
 - Highveld Tribune
 - Cosmos News
- Background Information Document
 - Distributed to all identified I&APs
 - Placed in local public libraries and municipalities
- Meetings:
 - Focus Group meetings, consultations, public meetings and one-on-one interactions
- **You can still get involved!! How?**



Discussion

**Facilitator:
Nicolene Venter**





Way Forward

- Compilation and distribution of minutes
- Inclusion of I&AP comments in Final Environmental Scoping Report (FESR)
- Submission of FESR report to DEA and Provincial Environmental Authorities
- Release of FESR into the public domain
- Authority review
- DEA comments and decision on FESR and POS for EIA
- Proceed with EIA phase if FESR is Accepted



Contact Details

PUBLIC PARTICIPATION OFFICE CONTACT DETAILS

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