



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

Landowner Focus Group Meeting

Tutuka Power Station

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



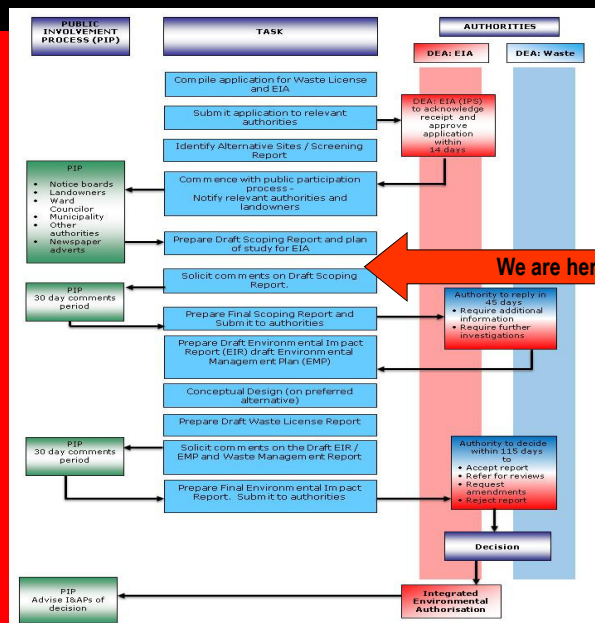


Why Environmental Studies?

- 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

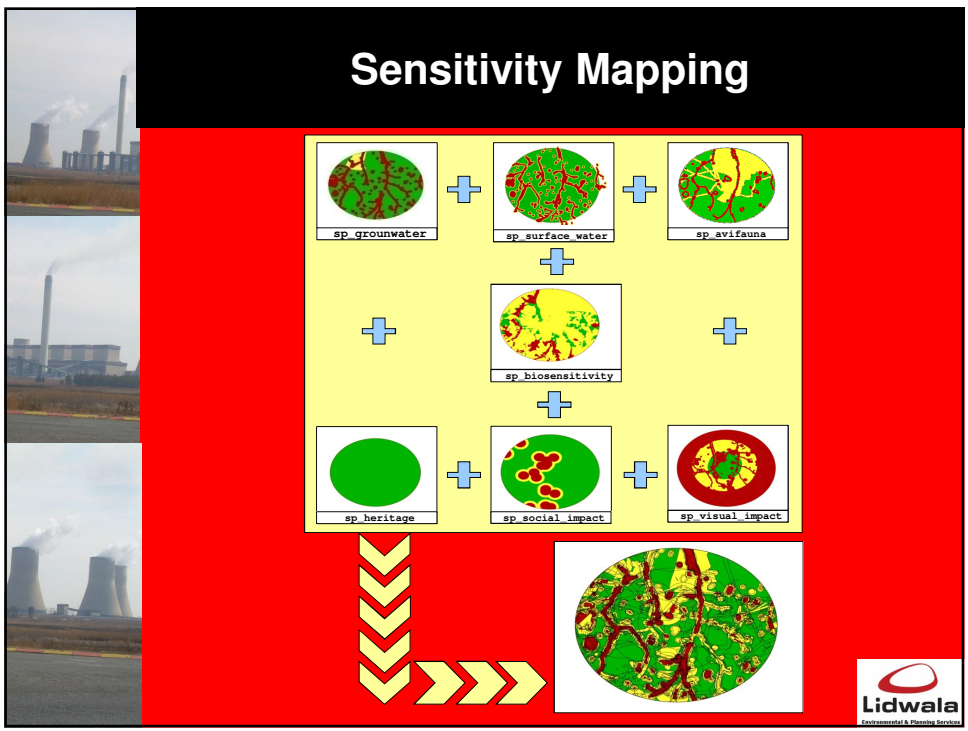
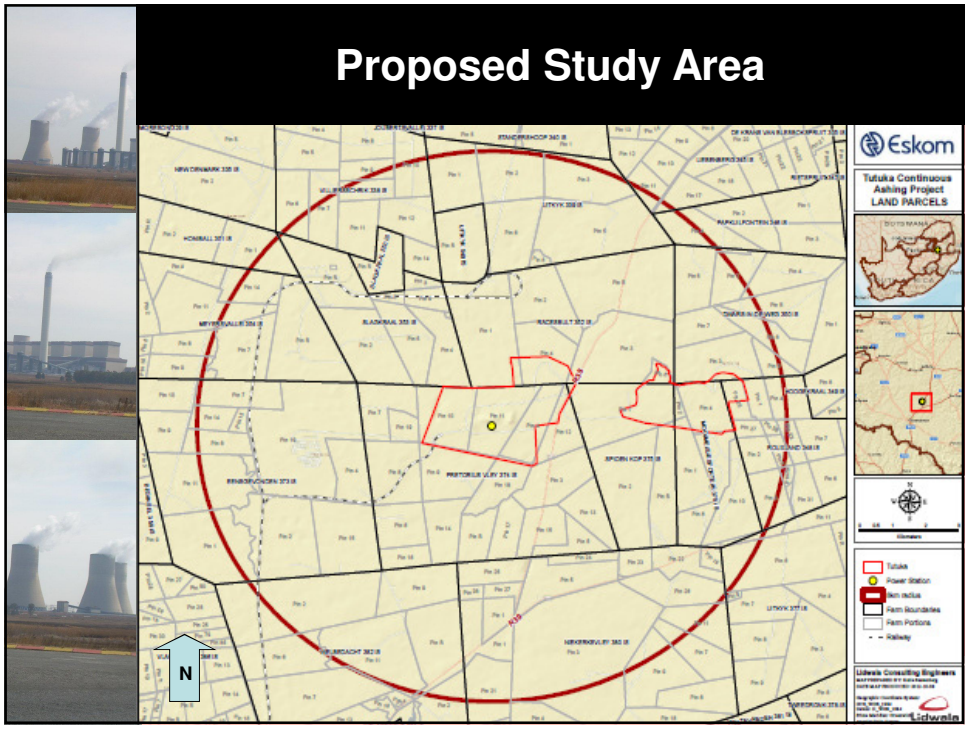
Phase / Task	Envisaged Date
Application form submission	August 2012
Screening / Scoping Phase	August 2012 – January 2013
EIA Phase	January – June 2013
Final Documents to DEA	June 2013
Integrated Authorisation	August 2013

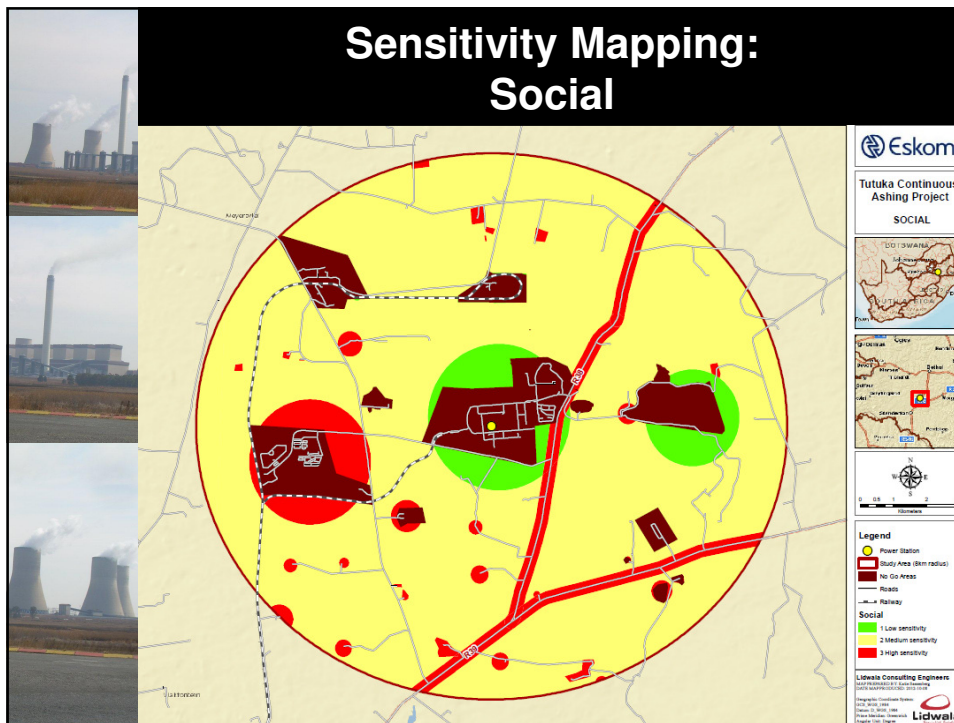


Sensitivity Mapping

- 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



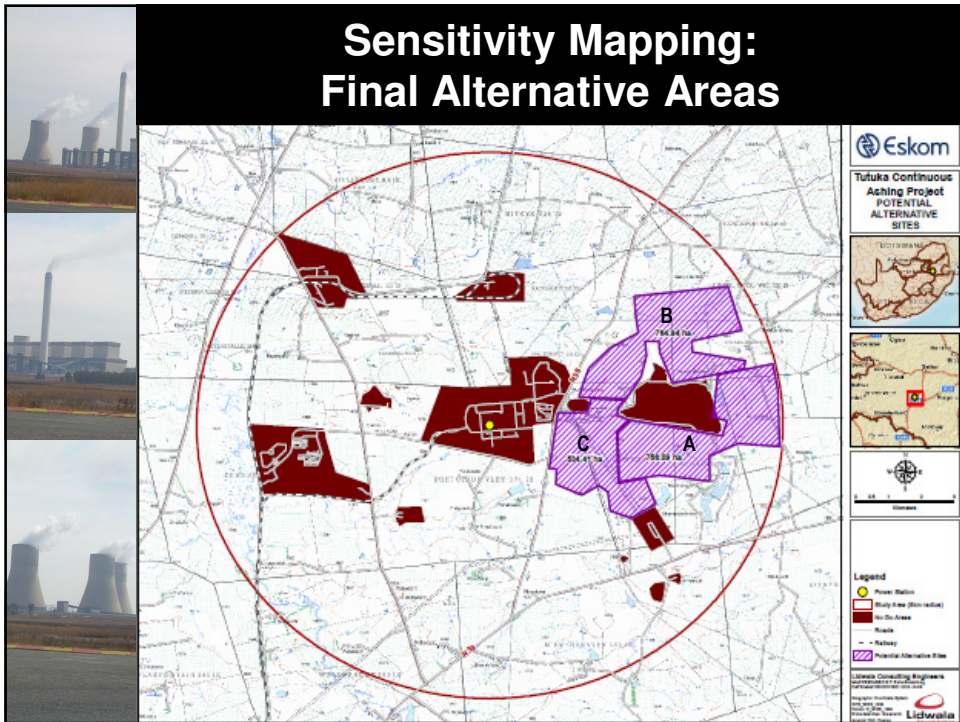
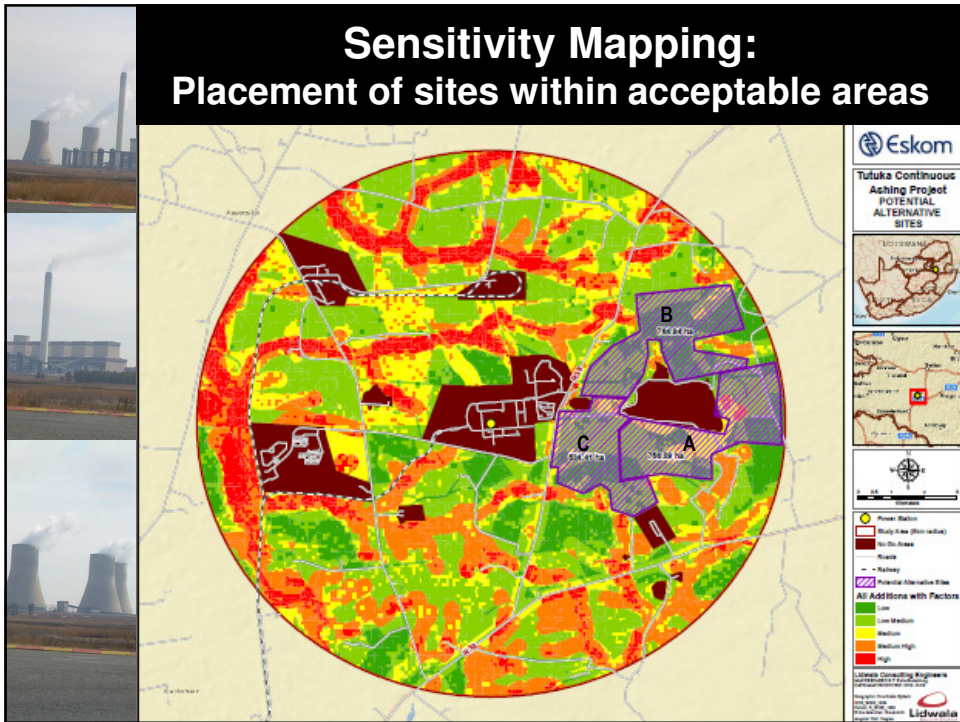




Sensitivity Mapping

- 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

Lidwala Consulting Engineers (SA) (Pty) Ltd

Bongi Mhlana / Nicolene Venter

Post: PO Box 32497, Waverley, 0135

Tel: (0861) LIDWALA (0861 543 9252)

Fax: 086 764 9282

E-mail: tutukaeia@lidwala.com

