







## 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

