

## UPDATES TO THE FINAL ENVIRONMENTAL IMPACT REPORT (FEIR)

A number of changes have been made to the Draft Environmental Impact Report (DEIR) to update the document to the FEIR, as well as address comments raised by Interested & Affected Parties and key stakeholder inputs. The important revisions and additions to the FEIR are summarised below to facilitate review of the final document.

### 1. NEMWA GN 921 updated 29 November 2013 to include Category C

- Subsequent to the release of the DEIR the Waste Classification and Management Regulations were updated and Category C was added to listed activities in terms of NEMWA (GN 921, 29 November 2013). Spoil which is classified as waste now falls under Category C and needs to meet the norms and standards and simply be registered with the Department, so does not require a waste management license.

### 2. Spoil amounts

- Tunnel (preferred option):* An approximate total of 115,000 m<sup>3</sup> spoil materials will be excavated from the weir, tunnel, power chamber, and tailrace. The largest amount of spoil would be generated by the construction of the tailrace.
- Canal:* An approximate total of 180,000m<sup>3</sup> to 200,000m<sup>3</sup> spoil material will be excavated from the weir, canal, power chamber, and tailrace. The largest amount of spoil would be generated by the excavation of the canal.

### 3. Component dimensions

- The description of infrastructure components has been updated based on revised design, as follows:

Permanent site infrastructure			
Component	Dimension (WXL)	Total footprint (m <sup>2</sup> )	Approximate coordinates
<b>Off-take infrastructure</b>	20m x 150m	3,000m <sup>2</sup>	29° 2'28.68"S, 22°12'15.93"E
<b>Water conveyance infrastructure</b>			
a) Canal	35m x 230m	8,000m <sup>2</sup>	
b) tunnel	6m x 6.75m x 300m	Nil (underground)	29° 2'23.41"S, 22°12'10.53"E
<b>Power station intake structure/ penstock</b>	20m x 20m	Nil (underground)	29° 2'19.88"S, 22°12'7.04"E
<b>Power chamber (i.e. Turbines and generator)</b>	38m long x 30m wide	1140m <sup>2</sup>	29° 2'19.62"S, 22°12'6.74"E
<b>Outlet works/ tailrace</b>	30m x 160m	4800m <sup>2</sup>	29° 2'19.29"S, 22°12'4.29"E
<b>Switchroom/ Transformer yard</b>	20m x 20m	400m <sup>2</sup>	29° 2'19.31"S, 22°12'6.93"E
<b>High Voltage (HV) Transmission Infrastructure</b>	Maximum - 30m x 41,000m Probable – 15m x 41,000m (30m for 132kV or 15m for <132kV)	1,230,000m <sup>2</sup> (however this is the entire servitude, each pylon would take up a small percentage of this)	Start 29° 2'19.31"S, 22°12'6.93"E Mid-point 29°11'21.44"S, 22°11'50.96"E Finish 29°20'44.58"S, 22°14'2.22"E

<b>Permanent site infrastructure</b>			
<b>Component</b>	<b>Dimension (WXL)</b>	<b>Total footprint (m<sup>2</sup>)</b>	<b>Approximate coordinates</b>
<b>Access roads</b>			
<b>Site Access</b>			
a) Existing	~ 8.5km x 6m	51000 m <sup>2</sup>	Start 29° 2'19.31"S, 22°12'6.93"E
b) New	-	-	Mid-point 29°11'21.44"S, 22°11'50.96"E
<b>Transmission route</b>			
c) Existing	~ 25km x 4m	-	Finish 29°20'44.58"S, 22°14'2.22"E
d) New	~16km x 4m (subject to final confirm in design phase)	64,000m <sup>2</sup>	
<b>Spoil material</b>	Reuse options include farm revetments to prevent flooding of fields and/or in the upgrade and establishment of access roads.	~ 170,000m <sup>3</sup> .	Access roads: as above Revetments: Start 29° 4'11.84"S, 22°12'44.39"E Mid-point 29° 4'10.08"S, 22°12'39.39"E Finish 29° 4'10.70"S, 22°12'35.25"E
<b>Borrow pits</b>	BP1 Circumference ~250m		29° 3'4.27"S, 22°14'4.01"E
a) Existing farm borrow pits	BP2 Circumference ~200m		29° 3'13.20"S, 22°14'50.38"E
<b>Sediment basins</b>	3 x 30m x 30m Total area may be bigger due to embankments and cuttings & sediment study results	2700m <sup>2</sup>	Centre basin 1: 29°02'18.13"S, 22°12'08.65" Centre basin 2: 29°02'16.28"S, 22°12'07.37" Centre basin 3: 29°02'14.56"S, 22°12'05.97"
<b>Temporary site infrastructure</b>			
a) Site office			
b) Construction yard	50m x 75m	3750m <sup>2</sup>	29° 2'27.23"S, 22°12'24.42"E
c) Staff accommodation			

#### **4. Sedimentation Management Plan**

A sedimentation plan has been drafted in order to provide clarification and detail on the proposed dredging of Boegoeberg Dam. The aquatic specialist has confirmed that the proposed sedimentation management plan would not significantly impact on aquatic resources but may improve the status quo. The sections of the report providing details have been revised accordingly.

## 5. Socioeconomic updates

While not part of this EIA study, a socioeconomic assessment was undertaken as part of the Department of Energy requirements. The socioeconomic study has taken cognisance of relevant information in this report.

## 6. Transport information

The trips associated with the project were updated based on revised design information, as follows:

Activity	Anticipated trips	Average trips
<b>Construction - Daily</b>		
Site Management	3 x 2 trips to and from site by Light Duty Vehicle (LDV) per day	6 LDV trips per day
Site staff	3 x 2 trips to and from site by taxis per day	6 taxi trips per day
Site visitors	2 trips to and from site per week	0.4 LDV trips per day
Sub-contractors	60% of the above items per day	7.45 trips per day
<b>Construction - Irregularly</b>		
Cement Trucks	24 trips over 24 months	1 trip per month
Reinforcing	24 trips	1 trip per month
Tunnel Equipment	10 trips	< 0.5 trip per month
Construction Equipment	12 trips	0.5 trip per month
Mechanical Equipment	12 trips	0.5 trip per month
Turbines & generators	6 Trips to site	6 Trips to site
Deliveries	1 trip per day	30 trips per month
<b>Operation and Management (O&amp;M)</b>		
O&M	5 Trips a week	5 Trips a week

## 7. Amendments and additions to the Environmental Management Program (EMPr):

A number of additional management plans have been appended to the EMPr to conform to the requirements of the Scoping Acceptance by DEA, as well as the SAHRA requirements. The following appendices have been included.

- Appendix B: Construction EMP General Specifications
- Appendix C: Vegetation Management Plan
- Appendix D: Hazardous Substances Management Plan
- Appendix E: Erosion Management Plan
- Appendix F: Stormwater Management Plan
- Appendix G: Traffic Management Plan
- Appendix H: Transportation Plan
- Appendix I: Waste Management Plan
- Appendix J: Heritage Conservation Plan
- Appendix K: Aquatic Resource Management Plan
- Appendix L: Hazardous Substances Management Plan
- Appendix M: Open Space Plan
- Appendix N: Service level agreements information
- Appendix O: Water Use License Information

These additions have necessitated that the format and structure of the EMP be changed to accommodate these changes.

**8. Comments received on the DEIR**

Focus Group Meetings with the !Kheis Municipality and the Boegoeberg Water Users Association, as well as a Public Information Session were held to present the DEIR. Comments made at these meetings, as well as comments made on the DEIR have been incorporated and responded to in the CRR3 and are appended to the FEIR.