

07 October 2013

Ref: 109636/wdr

Boegoeberg Hydro (Pty) Ltd
3rd Floor Terminal Building
ExecJet Business Centre
Tower Rd
Cape Town International Airport
8000

Att: N. Theron

Dear Mr Theron

BOEGOEBERG HYDRO POWER STATION: TRAFFIC IMPACT STATEMENT

We submit herewith the Traffic Impact Statement in respect of the Boegoeberg Hydro Power Station.

A consideration of the information available, in the context of the site location, gives rise to the conclusion that:

- Any notable traffic impacts are restricted to those arising from the transportation of the abnormal loads during construction and these will be confined to the expected six abnormal load deliveries.
- The traffic impact of the projected vehicle trips required for the construction and subsequent plant operation are negligible.

It is thus our recommendation that the project not be disallowed on the basis of its traffic impacts. However, it is recommended that the route from Upington to the site along the N10, N8 and DR3040 be considered as to its geometric and structural ability to carry the anticipated abnormal load vehicles.

The detailed considerations are depicted on the accompanying Traffic Impact Statement.

We trust this meets your requirements and look forward to discussing this in more detail with you.

Yours sincerely

WAYNE DUFF-RIDDELL Pr.Eng. PhD.

Technical Director – Transportation Planning
Aurecon (Pty) Ltd)

BOEGOEBERG HYDRO POWER STATION: TRAFFIC IMPACT STATEMENT

Boegoeberg Hydro Electric (Pty) Ltd (Boegoeberg Hydro) wishes to construct a hydropower station and associated infrastructure with an approximate capacity of 15 Megawatt (MW) at Boegoeberg Dam on the Orange River. The proposed Boegoeberg Hydro Power Station is situated on the northern bank of the Orange River on the farm Zeekoebaart approximately 26km south east of the town of Groblershoop in the Northern Cape Province. Figure 1 illustrates the location of the site and the proposed High Voltage (HV) transmission line from the proposed hydropower station to the Eskom Fibre Substation 36km south of the site.

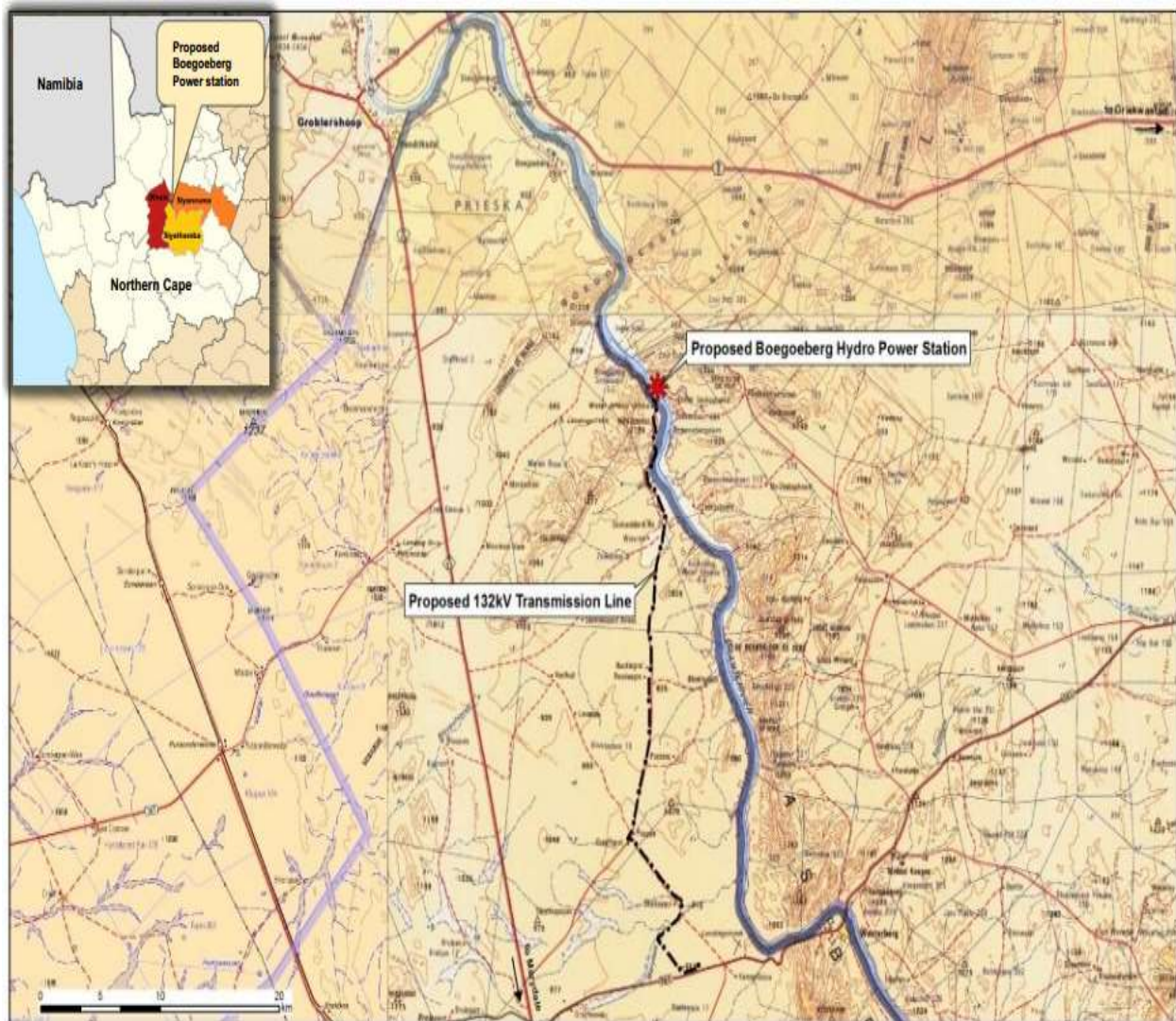


Figure 1: Location of the proposed Boegoeberg Hydro Power Station and transmission line

As part of the development Environmental Impact Assessment approval process, Boegoeberg Hydro has appointed Aurecon SA (Pty) Ltd (Aurecon) to consider the impact of traffic along a segment of the unpaved provincial road DR3040. This traffic impact statement reflects the outcome of that consideration.

The segment of DR3040 under consideration (shown in green in Figure 2) connects the N8 (shown in red in Figure 2) to the farm Zeekoebaart (designated with a purple star in Figure 2).



Figure 2: Affected road network

In assessing the impacts of traffic arising from the proposed development, the information shown in Table 1 regarding the expected traffic was obtained from Boegoeberg Hydro.

Table 1: Daily and irregular anticipated traffic to and from the site

Daily		
Activity	Anticipated trips	Average trips
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
Irregularly		
Cement Trucks	21 trips over 24 months	< 1 trip per month
Reinforcing	13.33 trips	< 0.5 trip per month
Turbines & generators	6 Trips to site	6 Trips to site
Operation and Management (O&M)		
O&M	5 Trips a week	5 Trips a week

Also obtained was the Kakamas Hydro Abnormal Route Study which considered the transport of abnormal loads from Johannesburg and Cape Town to Kakamas along the N14. This study indicated no problem in bringing the plant equipment up to Upington along the N14. However, it is recommended that the route from Upington to the site along the N10, N8 and DR3040 be considered as to its geometric and structural ability to carry the anticipated abnormal load vehicles.

A consideration of the information available, in the context of the site location, gives rise to the conclusion that:

- Any notable traffic impacts are restricted to those arising from the transportation of the abnormal loads during construction and these will be confined to the expected six abnormal load deliveries.
- The traffic impact of the projected vehicle trips required for the construction and subsequent plant operation are negligible.

It is thus our recommendation that the project not be disallowed on the basis of its traffic impacts along the segment of the unpaved provincial road DR3040.

WAYNE DUFF-RIDDELL Pr.Eng. PhD.

Technical Director – Transportation Planning
Aurecon (Pty) Ltd)