



REPUBLIC OF NAMIBIA

MINISTRY OF AGRICULTURE, WATER AND LAND REFORM

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Mr Teofilus Nghitila
Executive Director
Ministry of Environment, Forestry and Tourism
Private Bag 13306
WINDHOEK

Dear Mr Nghitila

SUBJECT: COMMENTS ON THE PROPOSED EIA.

The Ministry of Agriculture, Water and Land Reform (MAWLR) acknowledges receipt of the Environmental Scoping Assessment Report Prepared for the Remainder of Farm Grunewald No.135 Irrigation Development

Herewith attached, please find the comments on the Report in terms of the project's activities which fall within the mandate of the MAWLR.

Kindly accept assurance of my highest esteem.

Yours Sincerely,


Ndiyakupi Nghituwamata (Ms)
EXECUTIVE DIRECTOR



ENVIRONMENTAL SCOPING ASSESSMENT
THE REMAINDER OF FARM GRUNEWALD NO.135

IRRIGATION DEVELOPMENT
ENVIRONMENTAL SCOPING REPORT

RESPONSE SHEET FOR INTERESTED AND AFFECTED PARTIES

Comments/Suggestions/Questions

DIRECTORATE WATER RESOURCE MANAGEMENT

MAWLR Directorate of Resource Management (DWRM) has the mandate to manage the water resources by determining the potential of the water resources and ensuring the protection and sustainable utilization of the water resources. The directorate monitors and control pollution and over abstraction at national and regional levels.

GROUNDWATER MANAGEMENT

Hydrogeological condition of the site area

- The project area is underlain by the basement rocks (Damara Supper Group, Nama Supper Group, and Dwyka Group of the Karoo Super Group), which are overlain by rocks of the Ecca Sequence of the Karoo Super Group and the surficial Kalahari beds.
- Hydrogeologically, the project area is situated in a multi-layered aquifer system comprised of Kalahari (upper, unconfined), Auob (middle, confined) and Nossob (lower, confined) aquifers. The system is trans-boundary in nature as it extends from Namibia in Botswana and South Africa, named the 'Stampriet Trans-boundary Aquifer System' (STAS) after the town of Stampriet, which is situated in western part of the system with the highest groundwater potential. The Namibian part of the STAS has been declared a water control area; the Windhoek-Gobabis
- Mariental-Keetmanshoop Artesian Water Control Area.
- The unconfined Kalahari aquifer with lower groundwater potential and poor water quality is restricted to abstraction for domestic and stock watering purposes, while the Auob and Nossob aquifers with higher groundwater potential are restricted to abstraction for irrigation/ large-scale activities.

COMMENTS

- Page 3, Geology: First paragraph – Prince Albert Fm is of Ecca Group, **not** Dwyka Group.
- Page 5, under “Geology and Hydrogeology” – another subheading is required, similar to “Geology” on page 3. Otherwise the subheading “Geology” on page 3 may be deleted.
- Page 5, second paragraph, - It is necessary to present the piezometric data and illustrate how they indicate poor hydraulic connection between Kalahari and Auob aquifers. The hydraulic connection in the STAS is by means of fracturing in the Rietmond member and Basalts.
- Page 6, first paragraph, - in which aquifer was the mentioned water quality deterioration observed? Locally, what is the current water quality at the project area?



- Page 7, second paragraph, - the current abstraction is at least 350 000m³/a, and not 270 000m³/a, which means the proponent is over-abstracting by 30% of the quota.
- Page 8, first paragraph under “Water levels” – water levels and water quality data should be obtained from the proponent’s groundwater management program/plan, which is part of the environment management plan, and the abstraction data should be obtained as per condition 7 of the proponent’s permit (Permit No: 10785).

RECOMMENDATIONS

The Geohydrology division has **no objection** to the proposed development on Remainder of Farm Grunewald No. 135, however, it is recommended that:

- The proponent conducts a comprehensive hydrogeological study to assess the impact and feasibility of the proposed abstraction.
- The study involves water balance and numerical modelling that refines grids of the regional model, which was constructed by GGRETA study by UNESCO-IHP, within the project area and simulate scenarios related to the proposed abstraction.
- The simulation be used to assess the impacts of abstraction both locally within the project area as borehole as elsewhere in the region, especially up- and down-gradient areas.
- The study suggests a comprehensive groundwater management plan comprised of a clear water level monitoring network and water quality monitoring strategy, which are designed based on the results of the model.
- The proponent rehabilitates, disinfect, and test pump the existing boreholes used or earmarked for the abstraction. As the project area is situated within a water control area, a note should be taken that a permit must be applied for and obtained before any of these activities are conducted, buy using form WA001. Rehabilitation and correct test pumping are necessary to ensure reliable results of analysis and modelling.
- The renewal of permit 10785 will be based on results of the hydrogeological study, modelling, and test data analyses, hence it is recommended that the study report be comprehensive and the conditions of the rehabilitation and test pumping permit be strictly complied with.

