



Scientific Aquatic Services

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Date: 28 October 2014
Ref: SAS RHDHV 281014

Royal Haskoning DHV (Pty) Ltd
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Attention: Mr B Hoffmann

RE: SPECIALIST EXTERNAL REVIEW OF THE SURFACE WATER AND RIPARIAN ASSESSMENT STUDY FOR THE BASIC ASSESSMENT AND WATER USE LICENCE FOR A PROPOSED 15KM WATER PIPELINE ON THE FARM SANDDRAAI 391

Scientific Aquatic Services was requested to undertake a specialist external review of the surface water and riparian assessment study for the basic assessment and water use licence for a proposed 15km water pipeline on the farm Sanddraai 391 by Royal Haskoning DHV (RHDHV) on the report with reference T01.JNB.000336 undertaken by Mr. P da Cruz as reviewed and approved by Mrs. B. Griffiths *Pr Sci Nat* (Reg No.400169/11) and Dated July 2014. The objective of the review was focused on the following aspects:

- To determine whether the study meets current requirements/best practice and supports all information as required under the requirements for information as required by the regulatory authorities under the National environmental Management Act (NEMA) and the National water Act (NWA);
- To determine whether the study has adequately assessed the impacts of the proposed development; and
- To provide an independent opinion of the report, its findings and conclusion as it relates to the assessment of the impacts associated with the proposed project.

Less attention was paid to formatting and grammatical issues as these have no bearing on the scientific validity and independency of the work done. Notes were however made on the document on selected identified issues of this nature during the review process and forwarded to the project manager by means of track changes in Microsoft Word format. In addition comments were made in the report to guide rectification of the report, where required, or where wording made interpretation cumbersome.

The following points highlight the key findings of the review:

1. Overall the report is extremely well written and provides detailed description of the features assessed and the author displays in depth knowledge of the subject material;
2. The inclusion of an executive summary would be useful;

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3. First use needs to be checked throughout the report, acronyms list needs to be updated with those used within the report;
 4. Some (very few) small wording issues were identified which could be quickly resolved and ensure a better understanding of some small sections of the report;
 5. No national or regional desktop information is provided as available on the National Freshwater Ecosystems Database. This information is considered important to ensure that the project takes into consideration national and regional ecological conservation targets and concerns for the area.
 6. No reference is made of General Notice 1199 as published in the Government Gazette 32805 of 2009 as it relates to the NWA and the implications of the 500m trigger on development. This may not be an issue on this project as the features in the area are riparian features and not wetland features. However it was noted by the reviewer that an area on the Orange river could potentially be a wetland and in that case this regulation would need to be considered;
 7. The author should consider putting in the Classification table for the VEGRAI Ecstatus classes into the method section of the report so the reader can contextualise the results obtained;
 8. On page 33 there is mention of an area which is “thickly vegetated by *Phragmites* and *Typha capensis* reed species”. This area may therefore be defined as a true wetland and may require consideration as per point 3 above. Consideration should be given to the soils observed at this point as to whether the area constitutes a wetland or riparian habitat. the report may then need to be amended accordingly;
 9. The table headings of Table 1 and 2 are the same. Table 1 needs to be changed from “alignment 2 crossings” to “alignment 1 crossings”
 10. It is considered best practice to include a short discussion on the “No Project Alternative” and consideration should be given to including a brief discussion in the report;
 11. Consideration should be given to moving section 8 (Photographic Record of Crossings Along Alignment 1) to an appendix to improve the flow of the document from the results to the conclusion;

Based on the findings of this review it is the opinion of the independent reviewer that the information presented in this report is very accurate and the results reliable. The impact assessment is considered accurate and the mitigation measures proposed are considered relevant and necessary. There are some gaps in the technical information presented with specific mention background information on regional wetland conservation and wetland and riverine sensitivities and importance's. The author should consider inclusion of this information into the otherwise comprehensive report. In addition consideration may need to be given to issues surrounding Regulation GN1199 of the National water Act.

Professional Registration Details

I; Stephen van Staden am a professional member of the Southern African Council for Natural Scientific Professions (SACNASP) (Reg. No. 400134/05) (registered for ecological Sciences) and a member of the Gauteng Wetland Forum and the South African Wetlands Society (SAWS). In addition I am registered with the South African river Health Program as a SASS5 practitioner.

Please don't hesitate to contact me should you require clarity about this review or have any other queries.

Yours Faithfully,

Digital Documentation Not Signed For Security Purposes

Stephen van Staden