

**RIETKLOOF WIND FARM:  
AGRICULTURAL ASSESSMENT OF LAYOUT AND EMPr**

The purpose of this specialist input is to assess the acceptability of the WEF layout, and to assess the adequacy of the EMPr, both in terms of the project's impacts on agricultural resources.

The objective and focus of an agricultural assessment for Environmental Authorisation is to assess whether or not a proposed development will have an unacceptable agricultural impact or not, and based on this, to make a recommendation on whether it should be approved or not. Agricultural impacts are done in terms of the protocol for the specialist assessment and minimum report content requirements of environmental impacts on agricultural resources. The aim of this protocol is to preserve valuable agricultural land for agricultural production. Valuable land is considered to be predominantly scarce arable land that is suitable for the viable production of cultivated crops. However, all land that is excluded from agricultural use by this development is entirely unsuitable for crop production due predominantly to very significant climate constraints and is therefore not considered particularly preservation-worthy as agricultural production land.

The focus and defining question of an agricultural impact assessment is to determine to what extent a proposed development will compromise (negative impacts) or enhance (positive impacts) current and/or potential future agricultural production. The significance of an impact is therefore a direct function of the degree to which that impact will affect current or potential future agricultural production. If there will be no impact on production, then there is no agricultural impact. Impacts that degrade the agricultural resource base, pose a threat to production and therefore are within the scope of an agricultural impact assessment.

For agricultural impacts, the exact nature of the different infrastructure within a development has very little bearing on the significance of impacts. What is of most relevance is simply the total footprint of the facility that excludes agricultural land use or impacts agricultural land. Whether the footprint comprises a turbine, a road or a substation is largely irrelevant to agricultural impact.

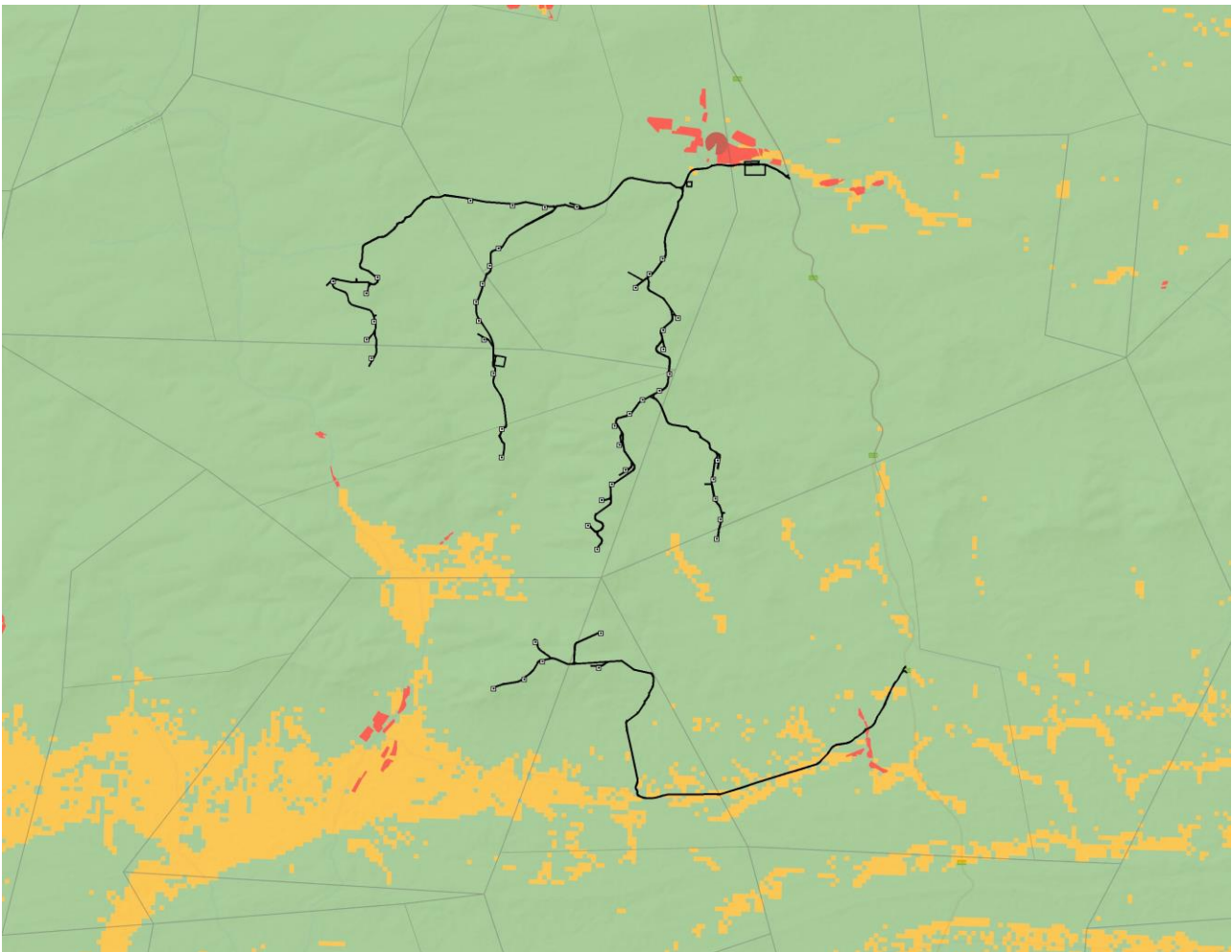
It is also important to consider the scale at which the significance of an impact is assessed. An agricultural impact equates to a temporary or permanent change in agricultural production potential of the land. The change in production potential of a farm or significant part of a farm will obviously always be highly significant at the scale of that farm, but may be much less so at larger scales. This assessment considers a regional and national scale to be the most appropriate one for

assessing the significance of the loss of agricultural production potential.

The significance of all potential agricultural impacts of the Rietkloof WEF is mitigated by two factors:

- the fact that the proposed site is on land of extremely limited agricultural potential that is only viable for low density grazing.
- The agricultural footprint of the wind farm (including all associated infrastructure and roads), that results in the exclusion of land from potential grazing, is insignificantly small in relation to the surface area of the affected farms. All agricultural activities will be able to continue unaffectedly on all parts of the farms other than the insignificantly small development footprint for the duration of and after the project.

A map of the facility layout, overlaid on the screening tool sensitivity, is given in Figure 1.



**Figure 1.** The proposed layout of the facility overlaid on agricultural sensitivity, as given by the screening tool (green = low; yellow = medium; red = high; dark red = very high).

The layout is almost entirely on land of very low potential which is rated as low agricultural sensitivity. Only a small part is on medium sensitivity and it entirely avoids any land that is rated more than medium sensitivity, and that would therefore be a higher priority in terms of its conservation for agricultural land use. The layout is therefore acceptable in terms of agricultural impact.

The Environmental Management Program for the Rietkloof WEF has been assessed. The important aspects of the protection of agricultural resources are the prevention of erosion and the maintenance of topsoil on the surface. These aspects are adequately covered in the EMPR and it is therefore considered to be adequate in terms of protecting agricultural resources. No amendments or additions are therefore recommended to the Environmental Management Program.

A handwritten signature in black ink, appearing to read 'J Lanz', with a long horizontal stroke extending to the left.

Johann Lanz (Pr. Sci. Nat.)