Soils and Agricultural Potential Study: Terms of Reference

The terms of reference applicable to the soils and agricultural potential specialist report includes the following:

1. Conduct a desktop study for the proposed site to assess the soil and land use of the site and receiving environment by interrogating relevant climate, topographic, landuse and soil datasets.
2. Perform a detailed (reconnaissance style) soil survey which will be undertaken for the surrounding environment. For the detailed site specific soil survey, each sample point is to be described to form and family level according to "Soil Classification - A Taxonomic System for South Africa" as well as noting relevant soil characteristics such as depth and limiting layers.
3. Perform a comprehensive land use and capability assessment which will involve rating the proposed site and surrounding lands according to its limitations, either in a permanent or temporary basis. The soil information gained from the survey is to be combined with climate, water resource, topographic and land type datasets (gathered during the desktop study) in order to provide a spatial classification of the land based on its soil characteristics and land use capability. Aerial photography and site visits are to be used to determine and delineate current land use for the potential sites as well as the surrounding environment.
4. Perform a comprehensive detailed soil and land use impact assessment based on the predicted impacts resulting from the proposed activities. Impacts, their rating and the establishment of confidence limits are to be assessed and will need to take into account the nature of the impact, impact duration, possibility of occurrence, potential for mitigation/optimisation, impact significance and confidence. The detailed assessment is to investigate direct and indirect impacts, ecosystem functionality impacts, positive and negative impacts, random and predictable impacts, local and widespread impacts, temporary and permanent impacts, short and long term impacts and finally cumulative impacts in the receiving environment
5. Recommend detailed mitigation measures which will reduce and ameliorate the soil and land use impacts identified in the comprehensive impact assessment.
6. Develop a soil and land use management plan (SALMP) which must include implementation plans for mitigation measures in order to reduce the identified impacts. Soil and land use monitoring plans are to form part the comprehensive SALMP.
7. Compile a comprehensive soils specialist report in the SiVEST report template.