

# **Management of human-induced salinisation in the Berg River catchment and development of criteria for regulating agricultural land use in terms of salt generating capacity**

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## **Abstract**

From previous WRC work by the same group, various needs were identified. One was to examine the effects a range of land uses may have on the production of salinity from the Sandspruit catchment. Another was to develop criteria to manage the salt production from this area. In the days of Dr Martin Fourie (1976), it was apparent that the load of salinity reaching the Berg River differed from sub-catchment to sub-catchment along the river. This project set out to establish if the range of agricultural practices in the region could be related to the differences in salt production in any way. In so doing, the team had to analyse the whole drainage path towards the river, make sure that this was duly represented in the models that were used and then test the effect that land use change had on the salinity and water levels that reached the Berg River. By implication the study did not focus on hydrological modelling only, but also on the understanding of the system through research aimed at determining the origin of salt, the behaviour of soils in this landscape and the effect different cultivation practices had on the water flow path. Subsequently, it had to be ascertained whether the hydrological models assessed these flows in an appropriate manner.