

Figure 5.5: Overall Environmental Sensitivity (Adjustment factor included - without technical / cost)

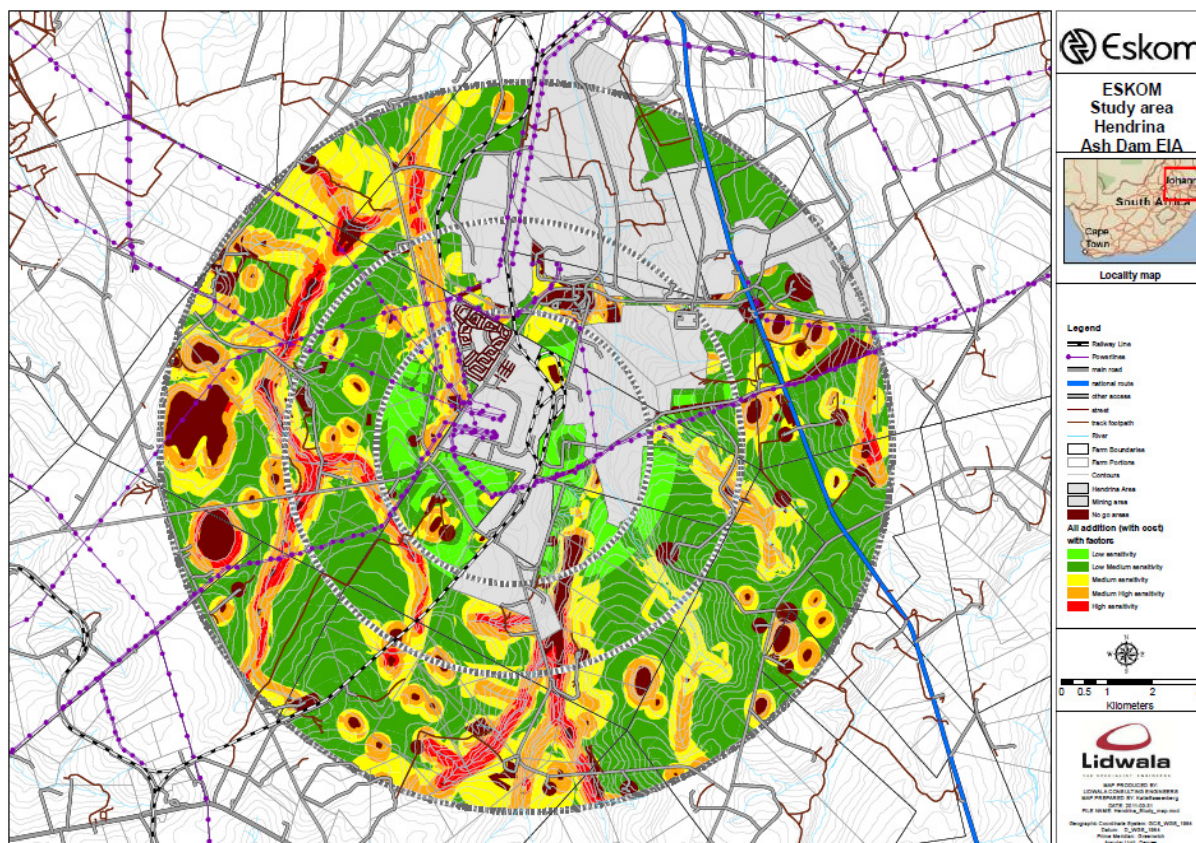


Figure 5.6: Overall Environmental Sensitivity (Adjustment factor included - with technical / cost)

Utilising the straight forward addition analysis including the cost layer (**Figure 5.4**) it can be concluded that the overall sensitivity of the study area falls within the low-medium to medium-high sensitivity range with only small areas being considered of low or high sensitivity. Where the cost layer has been removed the sensitivity reduces to an overall sensitivity of between low and medium (**Figure 5.3**). However, if one utilises the “max wins” (**Figure 5.1**) mapping technique, where any area marked as sensitive is kept sensitive, it is clear that the majority of the study area can be deemed to be sensitive in one way or form with only a few medium sensitivity areas closer to the power station. Once again the cost layer increases the overall sensitivity of the area by reducing the areas available for site selection. From the above analysis it is clear that the proposed new ash dam needs to be placed as close to the power station as possible.

The above maps were then utilized in order to determine the least sensitive areas of sufficient size to be considered as alternative sites for the proposed new ash dam at Hendrina Power Station. Alternative sites were required to be at least 209 ha in size and where required to fit within the low and low-medium sensitivity areas only.

Figure 5.7, 5.8 and 5.9 indicate the five alternative sites that will be evaluated and assessed in the EIA studies.

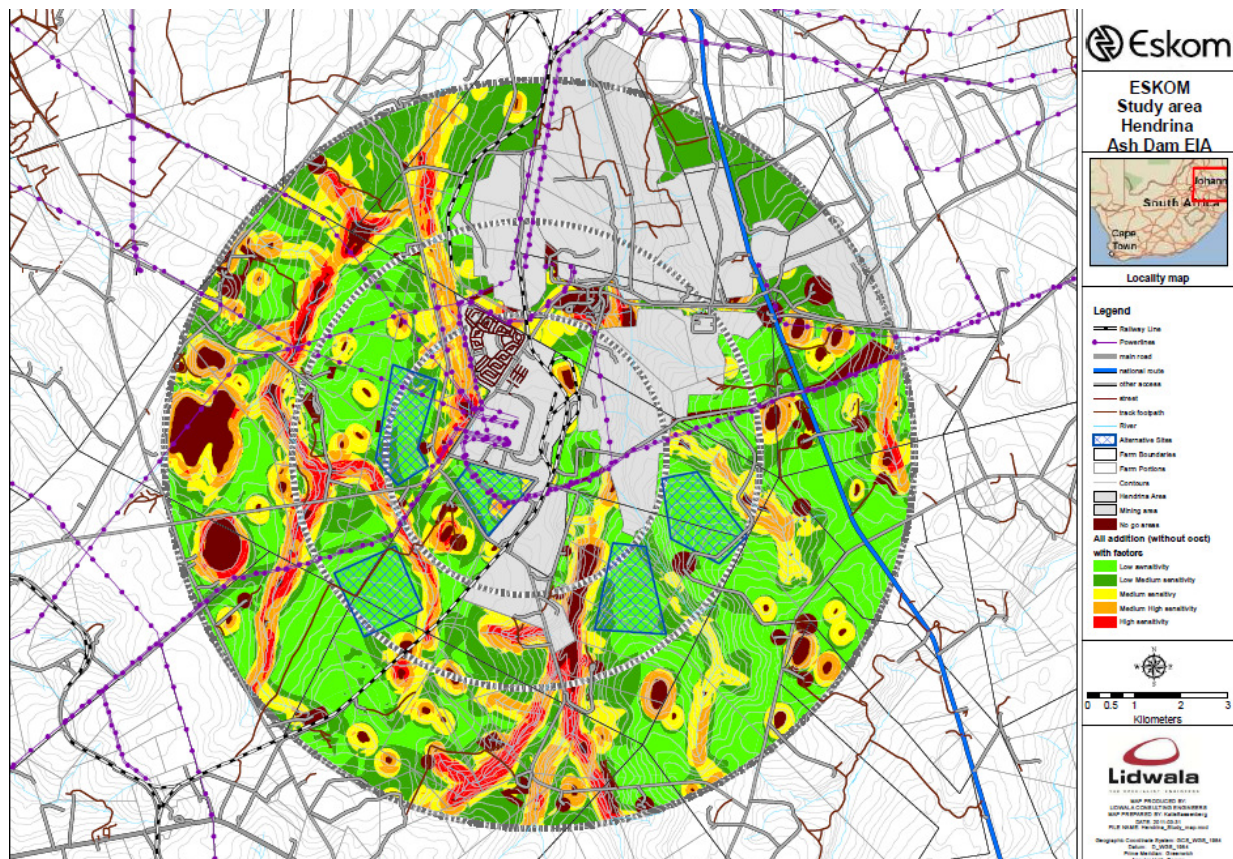


Figure 5.7: Recommended alternative sites (sensitivity map with the adjustment factors without cost)