



At what scale does upstream remnant vegetation impact on downstream salinity levels?

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Deep-rooted, perennial vegetation has been identified as key component in mitigating the spread of secondary dryland salinity by utilizing available rainfall and maintaining stable water table levels. This paper examines the relationships between land use and in-stream salinity at a regional-scale using existing land use maps and water quality data integrated in a GIS coupled with linear regression. Analyses were carried out using aggregated and non-aggregated land use statistics generated from satellite images over two decades. The results indicate greater proportions of native vegetation are inversely correlated with elevated salinity. This significant relationship is consistent across a variety of temporal scenarios and spatial scales. Data limitations and erroneously inferring causal relationships are discussed in the context of misguided management outcomes. Further work that allows a quantitative assessment of these relationships, rather than the qualitative assessments made here are required. Information of this nature will enable managers to devise tangible management guidelines (e.g. strategic revegetation programs to maximize cost efficiency).