

Interactive comment on “Surface water as a cause of land degradation from dryland salinity” by J. Nikolaus Callow et al.

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This paper deals with a specific kind of catchment in the drylands of Western Australia but carries a message for all studies aimed at the management of catchments. The specific details of the target catchments need to be understood and not simply extrapolated from other sites.

This paper is very well written with an introduction that clearly sets out the issues in relation to the state of present knowledge of these salinization processes and how they will be dealt with in this paper. The paper begins with an excellent and useful review of the salinity literature that leads well into the experimental work to be reported. This study of the catchment in fine detail reveals aspects of the hydrology that would not

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be seen just by catchment scale monitoring and leads to an appreciation of the role of the microtopography in determining the behaviour of the catchment. This leads to conceptualising the catchment behaviour as flow-fill-flood and the recognition the potential for surface water flow manipulation to produce better management of salinization in these catchments. The surface water flow approach is then tested experimentally in this catchment.

This is an excellent paper that can be published as it stands, though there are a few minor typos that can easily be corrected. It has a wonderful ending – “. . .you cannot manage what you do not understand.”

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