

## ***Interactive comment on “Evaluation of catchment connectivity and storm runoff in flat terrain subject to urbanisation” by O. V. Barron et al.***

**Anonymous Referee #2**

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General comments:

The manuscript presents an evaluation of catchment connectivity in an urbanizing environment. The title and the concept are really attractive and timely. However, the manuscript does not seem to address the issue of connectivity very clearly.

Specific Comments:

The literature review has very few citations (6 citations). The total number of citations for the manuscript is 11, of which only 5 are peer-reviewed publications. Given the body of knowledge in hydrology, hydrological connectivity and landscape ecology, it should be possible to assemble a very good review of the state of the knowledge in

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these topics. There are no citations in the case-study section or other relevant sections (sections 6, 6.1, 6.2 and 7).

It is not clear if the methodology was developed by the author; if so, what are the theoretical bases for this development? If not, it would be great to cite the source of the CCAA methodology.

The term connectivity was not clearly defined. This term brings the idea of the development or the use of a metric similar to the metrics used in landscape ecology to measure connectivity, flow or percolation in a landscape. Therefore changes in values could potentially help us understand how land use/land cover changes (in this case urbanisation) can affect runoff in a catchment. It would be really beneficial for the manuscript if urban connectivity could be explicitly linked to hydrological connectivity.

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Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 6721, 2009.

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