

Interactive comment on “Determination of cost coefficients of priority-based water allocation linear programming model – a network flow approach” by F. N.-F. Chou and C.-W. Wu

Anonymous Referee #2

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This is a nice application and extension of the earlier paper by Israel and Lund 1999. I like the authors' greater formalism from the earlier paper. Earlier work by Israel and Lund 1999 and a later 2007 dissertation by Ines Ferreira ("Deriving Unit Cost Coefficients for Linear Programming-Derived Priority-Based Simulation") implicitly consider all flow paths in their work and note many of the aspects developed in this newer paper.

The Ferreira dissertation is available at <http://cee.engr.ucdavis.edu/faculty/lund/students/Ferreira> and broadens the scope of the topic to include cost coefficient setting for more general linear programming formulations. There is a small application to the CALSIM model of California's water system. Linear programming has replaced network flow

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programming for many priority-based simulation software applications.

Some updating of the literature review, greater noting of the lineage of the authors' approach, and extending the discussion somewhat to include comments on LP-based simulation as opposed to only NFP-based simulation would improve the paper.

I'm glad to see others address this interesting problem for priority-based simulation models that uses an optimization engine.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 10, 15033, 2013.