

# Physical Pedotransfer Functions To Compute Saturated Hydraulic Conductivity From Bimodal Characteristic Curves For A Range Of New Zealand Soils

Revision of Manuscript HESS-2016-636

## RESPONSE TO EDITOR

Dear Prof. Nunzio Romano,

We would like to express, our gratitude for your efforts for organizing the review of our article: *Physical Pedotransfer Functions To Compute Saturated Hydraulic Conductivity From Bimodal Characteristic Curves For A Range Of New Zealand Soils*. We really appreciate your positive evaluation, and the feedback that you find our research interesting and valuable. We also wish to acknowledge the time and quality of Reviewer 1 and 3. In the revised version of the paper we employed the following major modifications:

- 1) We changed the title of the manuscript from “*Physical pedotransfer functions to compute saturated hydraulic conductivity from bimodal characteristic curves for a range of New Zealand soils*” to “*Saturated hydraulic conductivity model computed from bimodal water retention curves for a range of New Zealand soils*” to reflect that the developed  $K_s$  model is not a pedotransfer function but a  $K_s$  model. We also made some few changes in the introduction to reflect the change of the title.
- 2) We rewrote section 4.1. *Measurement of physical soil properties* where we provided more emphasis on the measurement method and removed details of methods used to sample the data which did not add value to the paper.
- 3) Provided better explanation of the relationship between  $H_{mac}$  and  $h_{m,mac}$  (Eq. 15).
- 4) Improved the quality of the equations.

Yours sincerely,

Joseph Alexander Paul Pollacco, Trevor Webb, Stephen McNeill, Wei Hu, Sam Carrick, Allan Hewitt, Linda Lilburne