

## ***Interactive comment on “Parameter sensitivity analysis of a 1-D cold region lake model for land-surface schemes” by José-Luis Guerrero et al.***

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Received and published: 16 January 2017

Dear,

It is a very nice study and important for understanding the role of lakes in the energy balance of cold regions. Just to make you aware that there are already several 1-D lake models for cold regions, especially the pan-Arctic, such as Stepanenko et al. (2011) and Tan et al. (2015).

Stepanenko, V. M., Machul'skaya, E. E., Glagolev, M. V., and Lykossov, V. N.: Numerical modeling of methane emissions from lakes in the permafrost zone, *Izvestiya, Atmos. Oceanic Phys.*, 47(2), 252–264, 2011.

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Tan, Z., Zhuang, Q., and Walter Anthony, K.: Modeling methane emissions from arctic lakes: Model development and site-level study, *J. Adv. Model. Earth Syst.*, 7, 459–483, 2015.

Best regards

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Interactive comment on *Hydrol. Earth Syst. Sci. Discuss.*, doi:10.5194/hess-2017-5, 2017.

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